

PERSONAL

Now that a General Election has been announced, prepare to be bored. The only answer is to video-record all party political broadcasts and discussions and play them back at quintuple speed. That way the rapid jerky gestures and eye movements confirm the essential shiftiness of some of the dubious covens we elect to high office, and the good guys of each party still manage to look relaxed and credible.

I shall go along to one or two meetings of the various parties and proffer an occasional question on education. Each candidate will thank me politely for mentioning his favourite subject, utter incoherent burbling noises for a couple of minutes, and then promise to spend a million trillion pounds on books if elected.

The sad reality of the matter is that many of those elected cannot even spell education, think pastoral care has something to do with sheep-shearing, and will cheerfully leave the chamber on the rare occasions that education is discussed. A number of debates on education have been attended by fewer than a dozen members, and some of those only stayed because they had dined too well and merely wanted somewhere warm to sleep where the police would not move them on.

Before the election campaign gets properly underway I know exactly what is going to infuriate me most. It will not be Michael Foot swooping through full stops and drawing breath somewhere in the following sentence about being interrupted in mid-rant, nor even Woy Jenkins wobbling on somewhat incredibly about the need for a leaner and fitter Britain. It will be Miss Piggy with her over-rehearsed, sincere look, bectoring me about the need to return to Victorian values.

Now if there is one period in our history I feel totally nostalgic about, other than the time of the bubonic plague, it is Victorian England. Every time I read about either education or social conditions generally in the nineteenth century I feel the knuckles whiten. Apart from a few strikingly humane exceptions it was a horrendously suffocating and hypocritical age, when a few powerful men enjoyed an exotic life at the expense of their fellows who lived in squalor, when many women were exploited, and children treated like an inferior species to be kept ignorant. My granny's health education was appalling. All illness, according to her, was caused by "bad blood" and should be treated by aspirin above the waist and epsom salts below it.

Victorian textbooks are full of

Ted Wragg



Elizabethan values

mindless drills which children had to chant in schools. It was part of a plan to beat original sin out of them and produce an obedient, unthinking citizenry. Round about 1870 the Rev Dr Brewer produced textbooks in geography and history which contained endless pages of the following gems to be chanted in chorus by the class in response to the teacher:

Q. What is the climate of England?
A. Moist, but healthy.

Q. What is the character of the En-

glish people?
A. Brave, intelligent, and very persevering.

It was not exactly Schools Council material.

In addition there was so much washing and scrubbing that children lost sight of any other purpose for schooling. A Victorian HMI tells in his report of a school visit how he asked a girl a question she could not answer. "What is your pretty head for?" he demanded in exasperation. "To brush and comb, sir", the bewildered maid replied.

I am not totally against the nineteenth century, you understand. Indeed, I took my fine collection of Victorianiana about Arthur Negus when the BBC's *Antiques Roadshow* came to town, and he was particularly impressed by the collection of Education Ministers which had graced my mantelpiece. Although my craggy-faced Lord Python has a few edges missing from using it to clean mud off my football boots, Arthur Negus has pronounced it absolutely genuine.

There was less luck with my Rhodes Boyson, however. Arthur tells me that this is only a replica. Apparently the foolproof test is to talk about caning, whereupon the real thing's eyes bulge and it says "swishhhhh". My Taiwan facsimile merely sat there impassively.

Also, I need a William Shakespeare to complete my collection, but, according to Arthur, Sotheby's haven't seen one of these for months, and the marines are out looking for a specimen. A national newspaper has offered £1,000 for a photograph and a liver for anyone who can remember a word he has ever uttered.

No, I simply prefer the values of the reign of another female monarch, the present Queen. Think of the best of what has been achieved for children since 1952: respect for them as persons, a very wide range of attractive curriculum materials, smaller classes in which they are individuals not cattle, a better chance to express themselves, more opportunities for further and higher education.

One can easily counter certain kinds of nostalgia by showing films of life in former times or quoting statistics. Some oldies might like to believe that Paavo Nurmi was the greatest runner of all time, but the stopwatch would bend when Coe and Ovett were doing their lap of honour, and films of old soccer players show they were as horses compared with the skilled athleticism of the modern player. Stuff nostalgia for repressive Victorian education. Give me Elizabethan values any day of the week.

ARISTIDES

The new boys' term begins

Although the attention of every voter has been turned elsewhere, back to the town hall the education committees are still rearranging chairs following the local elections at the beginning of the month.

Among the most interesting new personalities emerging are those in Liverpool, where there was a change in controlling party, and in Sheffield—where there wasn't.

In Liverpool it was confirmed at this week's full council meeting that the new education committee chairman is Dominic Brady, a 24-year-old first year student at Liverpool Polytechnic, who has already publicly declared his willingness (see last week's TES) to issue orders to the poly's rector on policy after the GNA's critical visitation.

This embarrassing confrontation is given added clarity by the fact that young Brady is on the town and country planning course that the rector, Dr Gerald Bulmer, proposes to close, though it is hard to see how Labour's full education programme in Liverpool would leave the new chairman much time free for study.

It is fair to add that town and country planning is a very relevant subject in an area of such urban dereliction as Liverpool, and Dominic Brady started on the course after studying for his A levels in the evenings—as well as serving as a Labour councillor for the last four years. He had left school after taking his O levels, then got a job as a caretaker in the education department, so he has several areas of practical interest in his new responsibilities.

Meanwhile, over in Sheffield, which has been situated solidly in the political heartland of the South Yorkshire People's Republic within living memory (apart from a slight blip in 1967), the Labour group finally made up its mind on Monday night on a successor to Peter Horton.

After 15 years as education committee chairman in Sheffield, and almost as long in the national stage, Mr Horton has decided that it is time to step down in favour of the city's new generation, and maybe look into the rambling and sailing options.

He has quite a local record to look back on. Sheffield went fully comprehensive in 1969 with a pattern of neighbourhood secondaries and feeder primaries; and a minimum of fuss. It was also a pacesetter on governing



Dominic Brady: education chairman at 24

bodies back in 1969, setting up one for each school and letting in teachers, parents and pupils, a perfect example for Taylor.

For most of these 15 years Horton was teaching biology at Ashton comprehensive in Rotherham, though he went part-time when he joined the Association of Metropolitan Authorities in 1974 and retired from teaching altogether a couple of years ago.

Having chaired the AMA's education committee from 1977-79, the plan had been to make more time for his political work on the national scene, but by then Nicky Harrison had taken over Labour's AMA timetable. But there was plenty of other AMA representation to do, and he was, of course, a member of the historic Waddell Committee on 16-plus reform.

He recalls now that the first ques-



Peter Horton (left) and his successor, Mike Bower

tion asked at a meeting of "that strange committee" was "Does our mandate cover not having an examination at all?" Waddell had no answer to that, he reports.

The man chosen this week as his successor is a former journalist and NUJ official called Mike Bower, with a reputation for hardwork and serious-minded commitment. The reason it took so long to pick him was that his Labour colleagues really had him in mind for the chair of the employment committee.

Bower had already served for a couple of years as education vice-chairman, but his doubts about the employment job arose on conflict of interest.

For the last couple of years he has been working as full-time organizer for the Sheffield Cooperative Development, a thriving group of 15 cooperatives put together in 1980 to give redundant workers in various trades the chance to work on a contract basis.

Mike Bower intends to carry on with this job; and he might have had a difficult double role to play if he had had to represent groups coming to the employment committee for financial help. It is unlikely, though, that life would be as tough in either job as it was in his time as northern regional organizer for the NUJ, during the provincial strike, when he literally got a bloody nose in the Nottingham Evening Post offices.

Constituent parts of West Lincs

News of another battling local education chairman about to make a bigger mark on the national scene comes from West Lancashire, where Mrs Josie Farrington has just been selected to fight for Labour in the General Election.

As Lancashire's education chairman, Mrs Farrington has put up some impressively fiery performances at the ACC and at conferences of late, and she was especially persuasive in a star intervention from the floor at the

North of England.

West Lancashire looks like a marginal that she has a fair chance of winning. The core of it, before the boundaries were redrawn, was Ormskirk, which Robert Kilroy-Gibb has held narrowly for Labour since 1974. He has now moved on to Knowsley North, so he presumably shares the views expressed in Robert Waller's new election book, *The Almanac of British Politics*, in "West Lancashire will be a starkly divided constituency".

On the one hand, the fertile and prosperous West Lancashire plain makes excellent Conservative territory, but on the other, the new town Skelmersdale has one of the highest unemployment rates in England; and Walter so perfectly observes: "A rather odd that Skelmersdale might have a Tory MP."

Mistaken identity

An intriguing misprint in the final conference agenda paper for the National Association of Head Teachers' annual conference will fuel the fire of those who felt Mr Noel Henderson, chairman of the Professional Association of Teachers, might be a bit too far left for that organiza-

tion's liking.

TES readers will recall that Mr Henderson said in an interview upon taking office that he was in favour of unilateral disarmament and admission couldn't see himself voting for David Livingstone regime but "do admit some of the things that they've done."

Well, the NAHT agenda lists the guests they've invited and puts Mr Henderson down as a representative of the National Union of Teachers, but we feel you ought to go?

No 102 CROSSWORD by RUTH

Crossword puzzle grid with clues:

Across

1 Rock and roll (7)

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Will now let's see how your opinions have changed since you were my teacher

THIS WEEK

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Teachers still back the Conservatives

Tory loyalties weather four years of cuts

by Philip Venning



Four years of education cuts have shaken teachers from their traditional loyalty to the Conservatives, according to an exclusive poll carried out for TES.

But the Labour Party has slipped to third place behind the SDP/ Liberal Alliance, according to the poll carried out by NOP Market research.

The poll, of 559 teachers in England and Wales, also reveals that half would be willing to have their pay and promotion linked to an annual assessment of their performance.

It shows, too, that teachers feel school education should have priority as an election issue. Other things were that all pupils over 14 should do a compulsory vocational course and that all schools should stand against racism.

According to the poll few secondary teachers believe that primary schools do a good job preparing pupils for their new schools.

How they would, or might, vote, 47 per cent of teachers said Conservative, 28 per cent Alliance, and 26 per cent Labour. This represents much higher Alliance support among teachers than the electorate as a whole, and has been achieved rather more at the expense of Labour than the Conservatives.

Labour traditionally has its strongest following in secondary schools but it is these voters who have been deserting the party.

In spite of the unprecedented extent of the cuts in the education service since 1979, former Conservative voters remain the most loyal, with nearly 9 out of 10 planning to vote Conservative again. By contrast only three-quarters of those who

Leverhulme to unveil HE proposals

by John O'Leary

An end to the specialized, three-year Honours degree, the partial introduction of student loans and a new body to monitor standards in the universities are among the major changes proposed today in the final report of the Leverhulme inquiry into higher education.

The two-year project, which has produced 11 volumes of evidence and argument, represents the most comprehensive examination of higher education since the Robbins Committee two decades ago. The final report is signed by leading industrialists as well as important figures inside the system and will be studied closely by incoming ministers.

Although the report does not propose the sweeping reforms which many had expected, it does call for a change of direction away from what is regarded as excessive specialisation. Two-year pass degrees, which would be the upper limit for mandatory, means-tested grants, would become the basic currency of higher education.

Courses would be broader than current degrees, preparing the way for subsequent specialization, which would be necessary especially in professional areas such as medicine.



Mr Kit Kelly, a biology teacher at Maccall's comprehensive in Paddock Wood, Kent, who was suspended by Kent County Council this week after *The Sun* carried a story about his style of dress outside of school. The school governors were due to discuss his suspension yesterday.

Archers' balancing act

by David Lister

The Government's assisted places scheme which pays towards fees at private schools for poor children may have come under fire in the Labour Party manifesto. But in the nation's most loved community it is being hailed as a godsend.

Down in Ambrose, home of *The Archers*, Lucy the publican's daughter has won an assisted place to Borehamston grammar school, now independent. She is not alone in wanting to avoid the local state schools apparently. Already Elizabeth Archer and young Adam Macey are away at public schools, though the

Head ashamed of 'filthy' school

A headteacher has told his local education authority that he is ashamed to show potential staff around his school because pupils are being taught in "filth and squalor."

Mr Charles Harris, headmaster of Mous Hill 12-16 secondary school, Dudley, has written to the West Midlands council's Director of Education, saying: "The state of dereliction generally is appalling and in certain areas downright disgraceful."

His 530-pupil school is being featured in a film produced by NALGO, the town hall white collar workers' union, to show the impact of spending cuts. But Mr Harris said the film was shot "clandestinely" without either his permission or that of the Conservative-controlled education authority, which has been severely criticized by HMI for underfunding education.

In his letter, Mr Harris said: "There are rooms in this school which have not had a lick of paint for 17 years; floors which are dangerous due to the tiles lifting, and a general air of neglect."

Following Mr Harris's letter, Mr Dennis Hart, chairman of the education committee, visited Mous Hill and emergency work on the school toilets has now been "put in hand".

Richard Garner

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EDUCATIONAL SUPPLEMENT
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Still standing to the Right



The Alliance... rated second in popularity with teachers.

political centre of the teaching profession is formed by "wet" Conservatives and members of the Alliance.

There is some interesting evidence about floating voters to be gleaned from the answers which respondents give to questions about their past voting record. Some 89 per cent of those who vote Conservative intended to vote Conservative again. Eleven per cent, however, thought they would switch to the Alliance. Only 73 per cent of Labour's 1979 voters in our sample said they would stay with Labour, 21 per cent switching to the Alliance. It looks as if fickleness extends to the Liberals, too: only 75 per cent of them remain constant; 12 per cent now threaten to vote Conservative and 10 per cent, Labour.

Altogether, the poll suggests there is still time for opinion to change in response to the election campaign. The voting intention figures are arrived at after the don't knows have been pressed to state a preference, even if they have not made up their minds. If you leave them in the uncommitted category, about 1 in 5 teachers still has to make a voting choice and the Alliance may well pick up more of these if Labour appears to falter, or Labour could surge ahead if the Alliance goes down the slot.

Psychological conclusions aside, the other main interest in the poll lies in the order in which teachers listed the main educational issues, and

their agree/disagree responses to the statements put to them by the interviewers.

The educational issue ranked first by most respondents - pre-school provision - came as a surprise: not because it is not of obvious importance, but because it has not been in the forefront of discussion lately. It is noteworthy that both Labour and the SDP have made the pre-school sector top priority and teacher opinion clearly supports this. It is one of the ironies of polls such as this that the Conservative Party which the majority of teachers also support does not give pre-school policy so much as a mention in its manifesto.

Level-pegging as the next two issues in order of importance that teachers chose from our list are two subjects which have been well in the mainstream of educational and political debate: examination reform and vocational education. Rating issues in order does not necessarily give much clue as to views on the issues concerned, though it is worth noting that vocational education was rated an important subject especially by Conservative supporters and secondary school teachers, while declared Alliance supporters (especially secondary teachers again) were most concerned about exam reform.

There is, however, more evidence on vocational courses elsewhere in the poll, with an impressive majority supporting their inclusion as an option in the curriculum after 14, and a significant three-quarters opting for a compulsory vocational element for everyone at that age, which suggests widespread agreement that a strictly academic diet is no longer enough.

Low down on nearly everybody's lists of issues came those items which the parties' policy makers might have expected to be the most popular vote-catchers: independent schools, grants for 16 to 18-year-olds, loans and vouchers (though admittedly the last two didn't quite make it to the Tory manifesto).

This probably had a lot to do with the fact that this was a poll of professionals; it may be indeed that any apparent discrepancies between support for parties and for their educational policies is simply explained by teachers basing their voting intentions on non-educational issues. We did not ask them this time how high they rated education in a list of election issues.

There is one other frustration for journalists in conducting or analysing a poll such as this, in that there is no opportunity for supplementary questions. Many of the agree-disagree state-

ments presented to our sample produced expected or interesting results when others there has to be an element of guesswork in interpreting them.

The conservative (with a small 'c') view of the teaching force is still evident in support for corporal punishment and compulsory religious education. But on a publication of HMI reports, three out of four teachers are in favour. Is this how they feel, or were the unions who opposed them out of touch with their members?

On the more obviously contentious issues there are signs of continuing debate and some impact on opinion. There is for example strong support for a declared policy of racism in the classroom, but a rather muted majority in favour of anti-racism which could be because consciousness of the second issue has not yet had long enough to establish its aims.

On new subjects like political education, peace education there is not unexpected evidence of strong difference of opinion. A narrow majority against peace studies in more definite overall view against education. In this instance, it is helpful to further. Although only 37 per cent agree that every school should teach peace education, against 49 per cent who disagree, result is strongly influenced by the primary teachers (23 per cent for/against). Among teachers in secondary schools where the subject is more likely to be taught, opinion was 52 per cent in favour against.

There is also a small, but definite, conservative plan to abolish the metropolitan counties and limit rate increases have been sharply criticised by both Labour and Conservative spokesmen.

Mrs Frances Morrell, Labour leader of the Inner London Education Authority - which is under threat on both counts - said on Wednesday that the proposal to place legal curbs on rate increases would lead to "the devastation of whole sectors of the service". She also attacked the plan to place the present authority with a board of the inner London boroughs. The changes showed that the Government were aiming to disempower the authority by stealth, she claimed.

And Mr John Horrell, chairman of the Conservative-controlled Association of County Councils, warned that further central government powers to raise rates would "damage the very essence of local government and local democracy" - the right of the local ratepayer to control their local budget and determine local priorities.

The Conservatives' plans to reform local government would affect education in three ways. First, the abolition of the Greater London Council would mean the end of the Inner London Education Authority, which is formal-

ly a special subcommittee of the council. But Sir Keith Joseph, Education Secretary, said this week that the authority's functions would be managed by "a joint board of the various authorities" - understood to mean the inner London boroughs.

Second, the Conservative Manifesto promises to "curb excessive and irresponsible rate increases by high-spending councils", which would hit Labour-controlled education authorities such as ILEA, Manchester and Sheffield. ILEA, for instance, is currently spending £352m more than the Government thinks it needs to.

Third, it promises to "provide a general scheme for limitation of rate increases for all local authorities, to be used if necessary".

Mrs Josie Farrington, Labour chairman of Lancashire education committee and parliamentary candidate for West Lancashire, is making the Government's plans to penalize rate rises a central plank of her campaign.

She told voters on Monday that, if Lancashire had not been able to raise rates to offset a £45m cut in government grant over the last two years the county would have had to sack staff, and make massive school closures. There would have been a "very drastic deterioration" in services like meals and adult education.

ILEA talks on contracts break down

by Richard Garner

Negotiations on a new contract for inner London's 21,000 teachers have broken down after just over a year of talks.

The breakdown, caused by the vexed question of lunchtime supervision and teachers' voluntary duties, will almost certainly kill off the possibility of any national negotiations for a new contract.

Representatives of the inner London teachers' unions were told by the Labour leadership of the Inner London Education Authority that they had no point in continuing the discussions when the two sides met last Friday.

The decision was reached after the Inner London Teachers' Association of the National Union of Teachers, which represents 14,600 of the 21,000 teachers, had withdrawn a document which had called for collective agreement to be established to cover voluntary duties.

The ILEA maintained that substantial progress had been made during the talks on other issues - such as guaranteed preparation and marking time and an increase in supply cover.

The ILTA sought a deferment of the negotiations at last Friday's meeting but were told by the authority that "it would be no longer fruitful" to pursue them.

Mr Bernard Regan, Inner London executive member of the NUT, said he was hopeful that progress could be made on individual issues which the teachers would now be taking up with the authority - such as non-teaching time and supply cover - "I was surprised that they didn't want to pursue it a bit more," he added.

The talks started after an earlier round of contract negotiations in CLEA/st which is responsible for teachers' conditions of service - had ended in deadlock over the question of lunchtime supervision, which

teachers say is entirely voluntary. The ILEA proposed that teachers should agree to the concept of "C-time". This would have meant pledging themselves to carry out a certain amount of voluntary supervision every month which could consist of either lunchtime supervision, attending parents' evenings or taking on other voluntary duties.

The ILTA, at that time under the leadership of Mr Bob Richardson, responded by tabling its paper calling for a code of practice on voluntary duties rather than a new and binding contract.

But the National Association of Schoolmasters/Union of Women Teachers, which represents 6,000 inner London teachers, walked out of the discussions at this stage and decided to boycott all future talks. It organized a half-day stoppage last week in protest over the continuation of the talks but it returned to the

negotiating table to be in at the death last Friday.

The new Left leadership of the ILTA, which won control after this year's elections, made it clear that it did not see any need to negotiate away anything on voluntary duties to achieve better supply cover or guaranteed non-teaching time - which had been promised in the Labour Party manifesto for London two years ago.

Mr Richard Rieser, general secretary of the ILTA, said this week that its council was planning a ballot of all its members on introducing "no cover" action to restore supply cover in inner London.

He added that it was asking the union's action committee to support a one-day strike - probably on June 22 - to protest at the authority's redeployment plans. He estimated that 300 secondary teachers and up to 150 primary teachers faced redeployment.



Contracts: NAS/UTW members take to the streets

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The ILTA, at that time under the leadership of Mr Bob Richardson, responded by tabling its paper calling for a code of practice on voluntary duties rather than a new and binding contract.

'Publish cuts document' - Kinnock

Mr Neil Kinnock, Labour's education spokesman, this week called on Sir Keith Joseph, the Education Secretary, to publish the latest HMI report on the effect of cuts on schools and colleges, *Biddy Passmore* writes.

He should publish it now, Mr Kinnock said, "both to respect the customary timetable and in order that the people of Britain may be given the information to make the balanced judgment that is their right".

The inspectorate's last two reports on the effects of spending cuts were published in February 1981 and April 1982. Last year's report found that only five out of the 96 English education authorities had a level of provision that HMI regarded as satisfactory on all major counts.

Sir Keith told the Commons last month that the new report would be published when it was complete. A DES spokesman said this week that it was still not finished but it is understood that, even if it were, it would not now be published before June 5 because of its political implications.

More than 100 Oxford dons have written this week to the country's Conservative-controlled education committee, noting "with disquiet the evidence that provision in Oxfordshire schools was perilously low".

It was "particularly shocking that the local authority of a place internationally known for its standards of learning should fail its citizens by running the public education service down", they said. See page 13

Top priority

The Secondary Examinations Council, meeting for the first time this week, has decided to make the future of the proposed 16-plus exam its top priority.

A hint that Bradford city council may be ready to make an important concession to Muslim parents was given by the education committee chairman to a packed meeting of Muslims last Sunday.

Mr Peter Gillmore admitted to nearly 1,000 Muslims that Bradford had been "somewhat remiss" over the last 20 years in meeting the needs of the whole community. But they would be starting discussions on whether to provide single-sex schooling.

This is the demand made repeatedly over the years to which the council has never yielded. A memorandum issued to schools last year, while making substantial provision for special dress, food and prayer facilities, made no mention of single-sex schools.

Now it looks as though a request earlier this year from the Muslim Parents Association to have five schools re-designated as "Islam voluntary-aided" has made the council have second thoughts.

A succession of speakers at the meeting in St George's Hall called for more control by Muslims over their children's education.

An information booklet was published last week by Bradford Council explaining to parents what arrangements schools are making for Muslim, Sikh and Hindu children. The booklet, printed in Urdu, Gujarati and Bengali.

Mr John Horrell, chairman of the Conservative-controlled Association of County Councils, warned that further central government powers to raise rates would "damage the very essence of local government and local democracy" - the right of the local ratepayer to control their local budget and determine local priorities.

The Conservatives' plans to reform local government would affect education in three ways. First, the abolition of the Greater London Council would mean the end of the Inner London Education Authority, which is formal-

ly a special subcommittee of the council. But Sir Keith Joseph, Education Secretary, said this week that the authority's functions would be managed by "a joint board of the various authorities" - understood to mean the inner London boroughs.

Second, the Conservative Manifesto promises to "curb excessive and irresponsible rate increases by high-spending councils", which would hit Labour-controlled education authorities such as ILEA, Manchester and Sheffield. ILEA, for instance, is currently spending £352m more than the Government thinks it needs to.

Third, it promises to "provide a general scheme for limitation of rate increases for all local authorities, to be used if necessary".

Mrs Josie Farrington, Labour chairman of Lancashire education committee and parliamentary candidate for West Lancashire, is making the Government's plans to penalize rate rises a central plank of her campaign.

She told voters on Monday that, if Lancashire had not been able to raise rates to offset a £45m cut in government grant over the last two years the county would have had to sack staff, and make massive school closures. There would have been a "very drastic deterioration" in services like meals and adult education.

The ILEA maintained that substantial progress had been made during the talks on other issues - such as guaranteed preparation and marking time and an increase in supply cover.

The ILTA sought a deferment of the negotiations at last Friday's meeting but were told by the authority that "it would be no longer fruitful" to pursue them.

Representatives of the inner London teachers' unions were told by the Labour leadership of the Inner London Education Authority that they had no point in continuing the discussions when the two sides met last Friday.

The decision was reached after the Inner London Teachers' Association of the National Union of Teachers, which represents 14,600 of the 21,000 teachers, had withdrawn a document which had called for collective agreement to be established to cover voluntary duties.

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ELECTION '83

TES/NOP POLL

Nearly half of all teachers believe that their pay and promotion should be linked to an annual assessment of their performance. Though the poll reveals nearly as much opposition to the idea as support, the fact that such a high proportion would be willing to consider the idea must give the teachers' unions food for thought.

Remarkable, also, is the fact that teachers who favour the proposal are of all types and of all political persuasions (though older teachers tend to be the least happy).

Instead, they strongly favour more vocational education for pupils of all abilities after the age of 14. One of the most surprising results of the poll is the clear message from teachers of every sort, young and old, senior and junior, Tory and Labour, that vocational education should have a new place in the curriculum.

Overall, 68 per cent of teachers agreed that pupils should have the option of a full vocational course at 14, while 78 per cent took a tougher line and supported a compulsory vocational element in the curriculum for all pupils over 14. These figures are slightly inflated by the fact that primary teachers also answered these questions, and were generally even keener on such a reform.

Among secondary teachers 60 per cent agreed with the option at 14 (and 30 per cent disagreed), but 73 per cent favoured a compulsory element (while only 19 per cent disagreed).

The issue has been brought to the front of the political debate by Sir Keith Joseph's initiatives for the '14-19' scheme and the series of pilot schemes for vocational education being started in various local authorities this autumn.

Generally, the idea of an optional full vocational course, of the sort to be tried out, has less support than a compulsory element for pupils of all abilities. Indeed among senior secondary teachers (heads of department and above), only half favour the option and 40 per cent are against it.

Perhaps the most significant result is that the idea of a compulsory vocational element for all pupils over 14 attracted so little opposition. Senior secondary teachers were least happy (25 per cent disagreed), but they were on their own. Only 1 in 10 of new teachers were against it (and 8 out of 10 were for it).

Tories turned out to be the most enthusiastic for a compulsory vocational element, while the Alliance were least so. But the difference was minor.

The poll also gives the teachers' verdict on two of the year's more controversial curriculum proposals: that all schools should teach peace studies and political education.

Overall, teachers are almost equally divided on peace studies though those most affected - secondary teachers - are against them. The peace studies debate, split teachers along age and experience lines with 45 per cent of under 35s in favour. Heads and other senior secondary teachers are most opposed (58 per cent disagree).

The starker contrast is between the political parties, not surprisingly perhaps in view of the link in some people's minds between peace studies, unilateralism, and left-wing politics.

As election day approaches what do teachers think about the parties and the education issues? - the results of a TES survey carried out by NOP Market Research Ltd

Analysis: Philip Venning. Additional research: Lois Rodgers

Strong support for pay to be linked to performance

The poll reveals that teachers:

- Will vote Tory, in spite of the education cuts
- Favour the Alliance at the expense of Labour
- Consider pre-school education important, but have little time for political issues like vouchers and student loans
- Want compulsory vocational courses for all pupils over 14
- Want a stand to be taken on racism in the classroom
- Are divided about peace studies and political education

- Want to keep corporal punishment and compulsory religious education
- Are not keen to admit handicapped pupils to the classroom
- Are split over whether their pay and promotion should be based on an annual assessment
- Favour a declared school policy on sexism
- Like the publication of HMI reports
- Have doubts about how well primary schools prepare their pupils for secondary school

| Pupils leave primary schools well prepared for secondary school | Total % | Primary % | Secondary % | Under 35 % | Over 35 % |
|---|---------|-----------|-------------|------------|-----------|
| Agree | 45 | 63 | 26 | 33 | 54 |
| Disagree | 33 | 17 | 48 | 43 | 26 |

| Teachers in secondary schools fail to maintain pupils' interest in education | Total % | Male % | Female % | Junior % | Senior % |
|--|---------|--------|----------|----------|----------|
| Agree | 33 | 38 | 28 | 37 | 30 |
| Disagree | 38 | 28 | 37 | 36 | 40 |

| Every school should have a declared policy to combat racist attitudes in the classroom | Total % | Male % | Female % | Junior % | Senior % |
|--|---------|--------|----------|----------|----------|
| Agree | 74 | 87 | 78 | 77 | 78 |
| Disagree | 15 | 11 | 11 | 10 | 10 |

| Every school should have a declared policy to combat sexist attitudes in the classroom | Total % | Male % | Female % | Junior % | Senior % |
|--|---------|--------|----------|----------|----------|
| Agree | 63 | 49 | 56 | 63 | 46 |
| Disagree | 26 | 34 | 19 | 18 | 37 |

| Pupils should have the option of a full vocational course at 14 in school | Total % | Male % | Female % | Junior % | Senior % |
|---|---------|--------|----------|----------|----------|
| Agree | 68 | 64 | 71 | 64 | 61 |
| Disagree | 18 | 16 | 17 | 16 | 12 |

| All pupils should have a vocational element in the school curriculum after 14 | Total % | Male % | Female % | Junior % | Senior % |
|---|---------|--------|----------|----------|----------|
| Agree | 78 | 78 | 80 | 76 | 87 |
| Disagree | 17 | 16 | 17 | 16 | 12 |

| Parents should receive education vouchers | Total % | Male % | Female % | Junior % | Senior % |
|---|---------|--------|----------|----------|----------|
| Agree | 17 | 16 | 17 | 16 | 12 |
| Disagree | 67 | 70 | 84 | 63 | 74 |

| Importance of Education Issues | Conservative % | Labour % | Alliance % |
|--------------------------------|----------------|----------|------------|
| 1. pre-school provision | 24 | 27 | 30 |
| 2. vocational education | 24 | 18 | 19 |
| 3. exam reform | 17 | 18 | 20 |
| 4. independent schools | 15 | 9 | 10 |
| 5. 16-19 EMA | 15 | 8 | 4 |
| 6. DES specific grants | 4 | 4 | 4 |
| 7. MSC intervention in schools | 3 | 3 | 3 |
| 8. parental power | 3 | 1 | 3 |
| 9. vouchers | 2 | 11 | 6 |
| 10. student loans | 2 | 1 | 2 |

There were between Conservative and Labour voters (with the Alliance somewhere in the middle): a quarter of all Tories agreed with political education, compared with 60 per cent of Labour voters.

The teachers were also asked about two other potentially sensitive issues - what to do about racism and sexism in the classroom. On the former the answer was unambiguous - three-quarters said that schools should have a declared policy of opposition. The only group who were not so keen were senior secondary teachers, and to a lesser extent male teachers in general.

Though there were political differences between those who agreed, even the Tories were quite clearly in favour.

Nearly the same proportion of men as women agreed that schools should tackle sexism (and overall 53 per cent did so). But a third of all male teachers, and over a third of heads and other senior secondary teachers, disagreed. Though Labour voters were strongly anti-sexist, getting on for half of all Tories were so.

heads and senior teachers were most willing to see the end of corporal punishment.

Another old chestnut is religious education which a majority of teachers want to keep. In this case it is the primary schools that are most adamant, while the opponents are drawn mainly from new teachers, men, and senior secondary staff. Two-thirds of Conservatives want to keep it: more than half the Labour voters want it to go.

In some areas the independence of Church schools, and particularly their ability to select their entry, has been a political issue but in the country as a whole this is not so. Many teachers simply do not know or do not feel strongly about it.

In spite of the apparent humanitarian line that teachers take on countering racism, they show themselves in a less favourable light on handicapped children. Four out of 10 teachers do not want handicapped children in their classroom - opposition that is most marked among young teachers. Only senior teachers stand out for being in favour.

Primary and secondary teachers have some damning things to say about each others' teaching abilities. While 63 per cent of primary teachers agree that pupils leave primary school well prepared for secondary schools, only 26 per cent of secondary teachers feel the same. Junior secondary teachers - those most in contact with the new intake - are even more critical.

By contrast, primary and secondary teachers are almost equally divided over whether or not secondary schools maintain their pupils' interest in education. Nearly a third of

all teachers passed no opinion. There was little enthusiasm general for student loans, but clear distinction between Tory voters (50 per cent of those with them), and Labour voters (10 per cent of whom were opposed).

Vouchers attracted a mere 17 per cent support, with overwhelming opposition from Tory, Labour, and Alliance voters. The publication of HMI reports, on the other hand, was universally popular.

Every school should teach political education

| | Total % | Male % | Female % | 1-4 years % | 5-10 years % | 11-16 years % | 17+ years % |
|----------|---------|--------|----------|-------------|--------------|---------------|-------------|
| Agree | 37 | 43 | 33 | 60 | 30 | 10 | 10 |
| Disagree | 49 | 41 | 56 | 40 | 70 | 90 | 90 |

Every school should teach peace studies

| | Total % | Male % | Female % | 1-4 years % | 5-10 years % | 11-16 years % | 17+ years % |
|----------|---------|--------|----------|-------------|--------------|---------------|-------------|
| Agree | 38 | 36 | 39 | 40 | 40 | 40 | 40 |
| Disagree | 43 | 49 | 40 | 60 | 60 | 60 | 60 |

Loans should replace grants for some HE students

| | Total % | Male % | Female % | 1-4 years % | 5-10 years % | 11-16 years % | 17+ years % |
|----------|---------|--------|----------|-------------|--------------|---------------|-------------|
| Agree | 33 | 24 | 40 | 24 | 24 | 24 | 24 |
| Disagree | 57 | 67 | 49 | 76 | 76 | 76 | 76 |

All teachers should accept handicapped pupils in the classroom

| | Total % | Male % | Female % | 1-4 years % | 5-10 years % | 11-16 years % | 17+ years % |
|----------|---------|--------|----------|-------------|--------------|---------------|-------------|
| Agree | 26 | 39 | 33 | 20 | 20 | 20 | 20 |
| Disagree | 41 | 42 | 40 | 80 | 80 | 80 | 80 |

ELECTION '83

TES/NOP POLL

The NOP poll, covering 500 primary and secondary teachers, was conducted at 46 sampling points in England and Wales between May 13 and May 15. Among secondary teachers were set on sex, subject, type of school (comprehensive, independent, and independent), and primary teachers' quotes were set on sex.

Teachers were shown a list of education issues and asked to rank them in order of importance. They were then asked to vote for their second, third, fourth, fifth and sixth most important issues.

Amalgamating these answers produces a rank order with the following issues: pre-school provision, exam reform, and vocational education, the English and Welsh language, DES specific grants, MSC intervention in schools, between 6 per cent and 10 per cent of mentions.

Bottom of the list were three Tory bright ideas: power, vouchers and local parental power has been a stone of Tory education policy for many years.

Not surprisingly, pre-school education is the overwhelming priority for primary teachers, while exam reform and vocational education are priorities for secondary teachers. Ignoring the teachers' own ranking, a subsequent analysis of the poll found that the same issues were the main concern of both primary and secondary teachers. Support for it is equally divided between voters of all parties.

Although the Scots still favour corporal punishment a higher proportion are against it than in England and Wales, with 6 out of 10 senior secondary teachers favouring its abolition.

Conservatives rate independent schools more highly than other teachers, presumably mostly in support. Intervention in schools by Manpower Services Commission purely secondary school pupils attracts its highest rating - 7 per cent - from Labour voters, and young, male teachers.

Teachers passed no opinion. There was little enthusiasm general for student loans, but clear distinction between Tory voters (50 per cent of those with them), and Labour voters (10 per cent of whom were opposed).

Vouchers attracted a mere 17 per cent support, with overwhelming opposition from Tory, Labour, and Alliance voters. The publication of HMI reports, on the other hand, was universally popular.

Every school should teach political education

| | Total % | Male % | Female % | 1-4 years % | 5-10 years % | 11-16 years % | 17+ years % |
|----------|---------|--------|----------|-------------|--------------|---------------|-------------|
| Agree | 37 | 43 | 33 | 60 | 30 | 10 | 10 |
| Disagree | 49 | 41 | 56 | 40 | 70 | 90 | 90 |

Every school should teach peace studies

| | Total % | Male % | Female % | 1-4 years % | 5-10 years % | 11-16 years % | 17+ years % |
|----------|---------|--------|----------|-------------|--------------|---------------|-------------|
| Agree | 38 | 36 | 39 | 40 | 40 | 40 | 40 |
| Disagree | 43 | 49 | 40 | 60 | 60 | 60 | 60 |

Loans should replace grants for some HE students

| | Total % | Male % | Female % | 1-4 years % | 5-10 years % | 11-16 years % | 17+ years % |
|----------|---------|--------|----------|-------------|--------------|---------------|-------------|
| Agree | 33 | 24 | 40 | 24 | 24 | 24 | 24 |
| Disagree | 57 | 67 | 49 | 76 | 76 | 76 | 76 |

All teachers should accept handicapped pupils in the classroom

| | Total % | Male % | Female % | 1-4 years % | 5-10 years % | 11-16 years % | 17+ years % |
|----------|---------|--------|----------|-------------|--------------|---------------|-------------|
| Agree | 26 | 39 | 33 | 20 | 20 | 20 | 20 |
| Disagree | 41 | 42 | 40 | 80 | 80 | 80 | 80 |

Publication of HMI Reports is helpful

| | Total % | Male % | Female % | 1-4 years % | 5-10 years % | 11-16 years % | 17+ years % |
|----------|---------|--------|----------|-------------|--------------|---------------|-------------|
| Agree | 76 | 70 | 80 | 80 | 80 | 80 | 80 |
| Disagree | 24 | 30 | 20 | 20 | 20 | 20 | 20 |

Religious Education should remain compulsory

| | Total % | Male % | Female % | 1-4 years % | 5-10 years % | 11-16 years % | 17+ years % |
|----------|---------|--------|----------|-------------|--------------|---------------|-------------|
| Agree | 57 | 47 | 55 | 40 | 40 | 40 | 40 |
| Disagree | 38 | 43 | 28 | 60 | 60 | 60 | 60 |

Church schools have too much independence

| | Total % | Male % | Female % | 1-4 years % | 5-10 years % | 11-16 years % | 17+ years % |
|----------|---------|--------|----------|-------------|--------------|---------------|-------------|
| Agree | 19 | 22 | 16 | 10 | 10 | 10 | 10 |
| Disagree | 49 | 46 | 61 | 90 | 90 | 90 | 90 |

ELECTION '83

TES/NOP POLL

Even divide north of the border

Scottish teachers are almost exactly divided between the main parties, with the Alliance one point ahead of Labour and two points ahead of the Conservatives. The findings also show that 1 in 10 will vote for the Scottish Nationalists.

A separate TES/NOP poll of 111 teachers in Scotland shows particularly strong support for the Alliance among secondary teachers, 36 per cent of whom intend to vote for the party. By contrast, primary teachers placed the Tories in the lead.

This is significantly different from the overall voting pattern in Scotland, where Labour is likely to remain the dominant party. In England and Wales past Conservative voters are most loyal, while in Scotland they appear least so.

Given the same 10 choices of educational issues, Scottish teachers rate exam reform and vocational education as top priority, pre-school education, the English and Welsh language one, is placed third.

As in England and Wales, vocational education was supported by nearly all teachers, and anti-racist and anti-sexist policies met general agreement. But unlike England and Wales, Scottish teachers were not keen on pay and promotion being linked to an assessment of their annual performance. Peace studies and political studies were not well received by teachers in Scotland as a whole, but among secondary teachers there was a slight majority in favour of them.

Although the Scots still favour corporal punishment a higher proportion are against it than in England and Wales, with 6 out of 10 senior secondary teachers favouring its abolition.

Conservatives rate independent schools more highly than other teachers, presumably mostly in support. Intervention in schools by Manpower Services Commission purely secondary school pupils attracts its highest rating - 7 per cent - from Labour voters, and young, male teachers.

Teachers passed no opinion. There was little enthusiasm general for student loans, but clear distinction between Tory voters (50 per cent of those with them), and Labour voters (10 per cent of whom were opposed).

Vouchers attracted a mere 17 per cent support, with overwhelming opposition from Tory, Labour, and Alliance voters. The publication of HMI reports, on the other hand, was universally popular.

Every school should teach political education

| | Total % | Male % | Female % | 1-4 years % | 5-10 years % | 11-16 years % | 17+ years % |
|----------|---------|--------|----------|-------------|--------------|---------------|-------------|
| Agree | 37 | 43 | 33 | 60 | 30 | 10 | 10 |
| Disagree | 49 | 41 | 56 | 40 | 70 | 90 | 90 |

Every school should teach peace studies

| | Total % | Male % | Female % | 1-4 years % | 5-10 years % | 11-16 years % | 17+ years % |
|----------|---------|--------|----------|-------------|--------------|---------------|-------------|
| Agree | 38 | 36 | 39 | 40 | 40 | 40 | 40 |
| Disagree | 43 | 49 | 40 | 60 | 60 | 60 | 60 |

Loans should replace grants for some HE students

| | Total % | Male % | Female % | 1-4 years % | 5-10 years % | 11-16 years % | 17+ years % |
|----------|---------|--------|----------|-------------|--------------|---------------|-------------|
| Agree | 33 | 24 | 40 | 24 | 24 | 24 | 24 |
| Disagree | 57 | 67 | 49 | 76 | 76 | 76 | 76 |

All teachers should accept handicapped pupils in the classroom

| | Total % | Male % | Female % | 1-4 years % | 5-10 years % | 11-16 years % | 17+ years % |
|----------|---------|--------|----------|-------------|--------------|---------------|-------------|
| Agree | 26 | 39 | 33 | 20 | 20 | 20 | 20 |
| Disagree | 41 | 42 | 40 | 80 | 80 | 80 | 80 |

Publication of HMI Reports is helpful

| | Total % | Male % | Female % | 1-4 years % | 5-10 years % | 11-16 years % | 17+ years % |
|----------|---------|--------|----------|-------------|--------------|---------------|-------------|
| Agree | 76 | 70 | 80 | 80 | 80 | 80 | 80 |
| Disagree | 24 | 30 | 20 | 20 | 20 | 20 | 20 |

Religious Education should remain compulsory

| | Total % | Male % | Female % | 1-4 years % | 5-10 years % | 11-16 years % | 17+ years % |
|----------|---------|--------|----------|-------------|--------------|---------------|-------------|
| Agree | 57 | 47 | 55 | 40 | 40 | 40 | 40 |
| Disagree | 38 | 43 | 28 | 60 | 60 | 60 | 60 |

Church schools have too much independence

| | Total % | Male % | Female % | 1-4 years % | 5-10 years % | 11-16 years % | 17+ years % |
|----------|---------|--------|----------|-------------|--------------|---------------|-------------|
| Agree | 19 | 22 | 16 | 10 | 10 | 10 | 10 |
| Disagree | 49 | 46 | 61 | 90 | 90 | 90 | 90 |

Third place for Labour contradicts teachers' left-wing image

Alliance gains but Tories stay well in front

More teachers expect to vote for the SDP/Liberal Alliance than for the Labour Party. But, in spite of four years of education cuts, the Conservatives remain clear favourites among teachers.

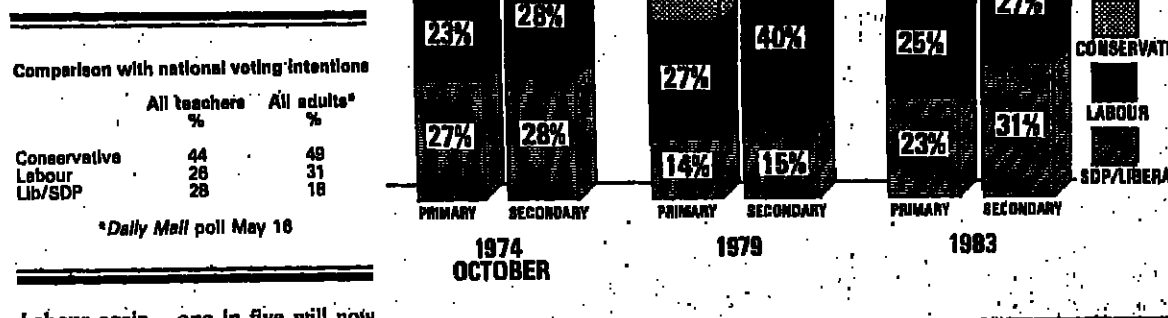
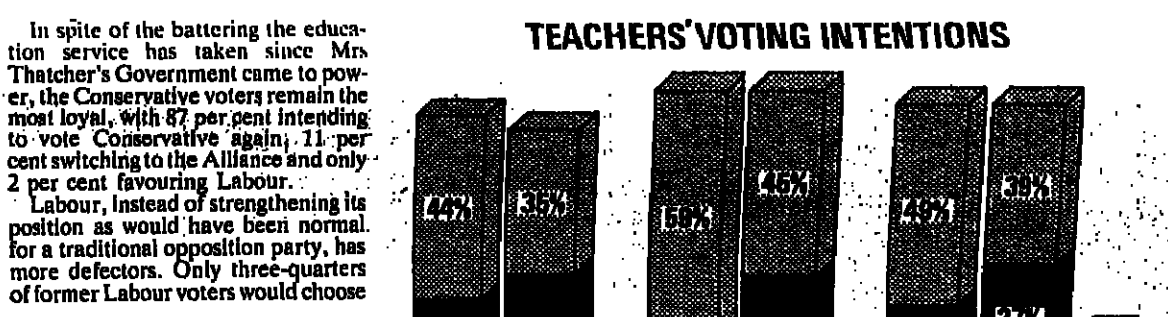
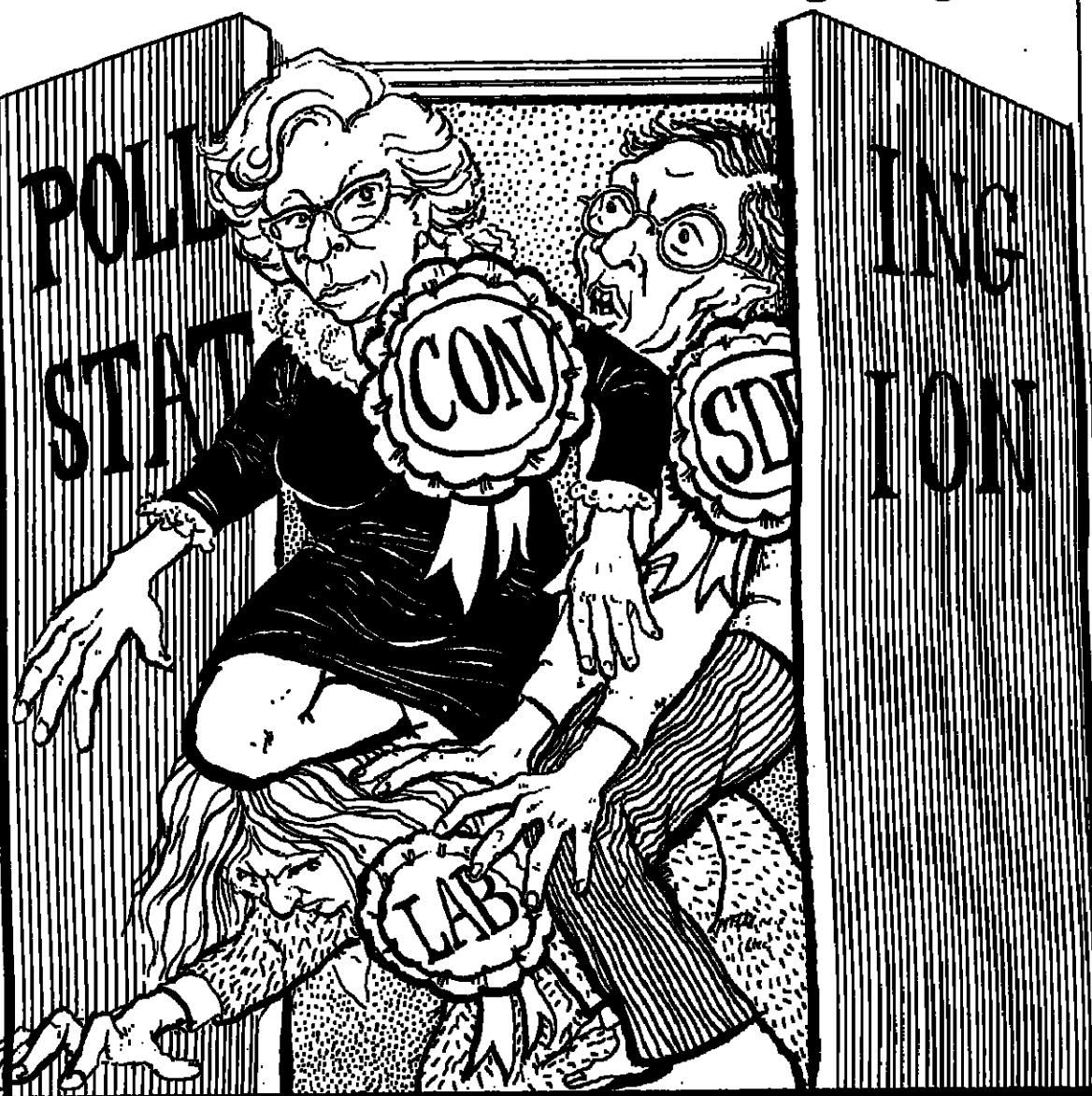
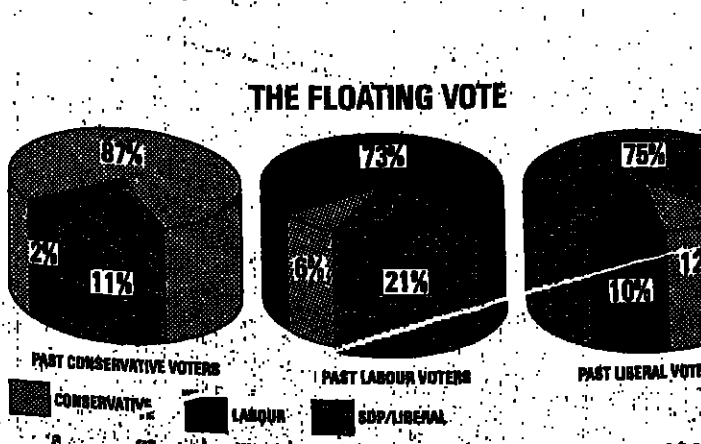
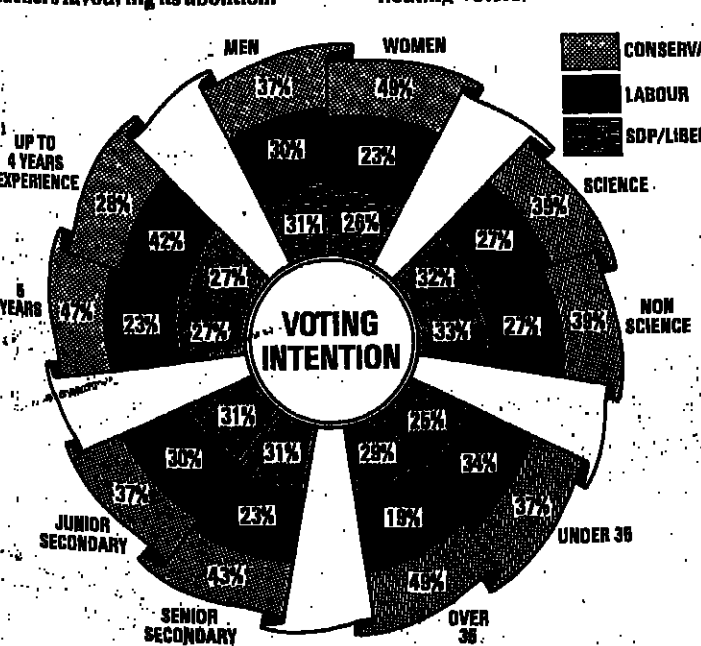
These are among the findings of a poll of teachers in England and Wales carried out by NOP Market Research Ltd. As in previous opinion polls commissioned by The TES at earlier elections, teachers' voting plans contradict their popular left-wing image.

Asked how they would vote, or might vote, 44 per cent of the teachers said Conservative; 28 per cent Alliance; and only 26 per cent Labour. This represents a substantial switch to the Alliance, rather more at the expense of Labour than the Conservatives.

Support for the Alliance was considerably stronger among teachers than in the country generally when the poll was carried out two weeks ago.

On the whole it is the secondary teachers - two-fifths of whom voted Labour in 1979 - who are most responsible for the decline in Labour support and the growth in Alliance popularity this time. Though primary teachers remain, overall, the strongest Tories they, too have had their doubts. As a result nearly a third of both primary and secondary teachers expect to vote for the Alliance.

As educated, middle class voters, teachers might be expected to be less rigid in their voting behaviour, and a detailed comparison between how they voted in 1979 and their current intentions shows a high proportion of floating voters.



Labour again - one in five will now choose the Alliance.

Oddest of all for a party in favour with teachers is the behaviour of former Liberal voters. Only three-quarters of them plan to vote for the Alliance, the remainder splitting equally between the other two parties. By contrast the small proportion of Nationalist voters (3 per cent of the sample) are completely unserving.

The starker difference in voting intentions appears between newish teachers (those with under five years' experience), and their longer-serving colleagues. Only 28 per cent of the former intend to vote Tory, compared with 47 per cent of the latter; and 42 per cent of the newcomers prefer Labour, compared with 23 per cent of the old hands.

Overall strongest support for the Conservatives comes from women primary teachers aged over 35; while Labour does best from younger male teachers. Alliance support is drawn more or less equally from all groups though primary teachers are least enthusiastic.

All but a handful expect to vote on June 9, and 92 per cent did so in the last election - varying from 97 per cent of senior secondary teachers to only 83

PLATFORM

It is now four years since the education world acquired a revamped Select Committee of MPs. Martin Lightfoot recalls the highlights of their term of office and measures their achievements.



Inset: Christopher Price (left) and Patrick Cormack



The new interrogators

In constitutional terms, government in this country is responsible to Parliament. In most respects and for most of the time, this accountability is a formality. In June 1979 Norman St John Stevas, then Leader of the House of Commons, persuaded the Government to follow the recommendations of a House Procedure Committee and changed the Select Committee system, with the aim of doing something to redress the balance.

The changes were small, but they were significant. For the first time there were to be Select Committees shadowing all the major departments of state, 14 in all. Secondly, the members were to be appointed for the whole of a Parliament, allowing the possibility of a build-up of expertise and in-depth analysis of major issues. They were given a small clerk's department and the power to appoint "specialist advisers".

The new Committees retained the traditional powers of the old Select Committees. They could call for witnesses and papers and, under certain circumstances, the refusal to appear or to give information could be regarded as contempt of the House of Commons, involving all the quaint but powerful procedures which such offences incur. They could meet in public, all their proceedings and reports were to be published, and they reported direct to the House itself. Government departments were obliged to respond to any recommendations made within three months.

The membership was also to be on the same basis as before. The members of the Committees were all back-bench MPs, holding neither government office of any kind nor forming part of the official shadow cabinet. The membership would roughly reflect the numerical state of the parties in the House, but in tune with the all-party concept the chairmanships were to be divided equally. The most important Committees (Treasury, Foreign Affairs, and Home Affairs) were quickly given a reputation for high standards of performance.

The Education Committee was led by Christopher Price, Labour MP for Lewisham West, was elected chairman. The nine members of the Committee covered the complete political spectrum, from Dafydd Iwan, Welsh Nationalist, and Martin Plummer on the Left, to Tim Brinton, formerly a well-known broadcaster, and Enoch Powell on the right. Shadowing the Education Committee was the Education, Science and Arts Committee, chaired by Patrick Cormack, chairman of the all-party Heritage Group, who acted as an unofficial deputy chairman, and de facto chairman of the Committee on arts subjects. The fact that the Committee was appointed for the whole Parliament made for a substantially greater cohesion, and for the build up of expertise. The Committee members learnt each other's minds,

and where they could not grow to agree with each other, they certainly enlarged their tolerance.

The style of the new Committees was very much dependent on the chairmen. There is no doubt that the Education, Science and Arts Committee was fortunate to have Chris Price, who as a former teacher and educational journalist, had a natural understanding of the service. And his political affiliations...? His own man in many ways; clearly well to the Left, but with occasional bouts of ratiocinating rightishness. On form, he was a natural interrogator: firm, clear, and intellectually rigorous. He also had the ability to take on a posture of senatorial gravitas as could wipe the suspicion of political bias firmly from any interrogation.

The remit of the Committee was staggeringly wide. In four years they have reported on subjects as diverse as the secondary school curriculum, biotechnology, higher education, the funding of the arts, and prison education. They held two general "scrutiny" meetings and one financial session a year with the Secretary of State and officials, conducted some seven or eight major enquiries, and many ad hoc sessions on topical issues. On almost any measure they have been one of the most productive and cost effective Select Committees.

They learnt quickly to use their powers to the full, and sometimes beyond. A witness who is called by a Select Committee must appear; the penalty is the Tower (no ordinary jail). When Mr Rupert Murdoch took over *The Times*, there remained the question of the continuance and editorial independence of the Supplements, including this one. Testing their muscle somewhat, the Committee called for Mr Murdoch. In the event Mr Murdoch was more than happy to appear and give the necessary assurances, and as an Australian citizen, he probably could not have been stuck in the Tower anyway.

The Energy Committee took the technique further with Arthur Scargill, and the formal notices were duly issued by a senior official of the House, a Miss Frampton, on her bicycle. Optimistic attempts to try the same ploy with the Prime Minister herself - on the grounds that she had once been unwise enough to say that she was in charge of science policy - were alas quietly deflected. They managed a major precedent too, when they persuaded the Secretary of State and the Home Office to allow a questionnaire

to give evidence in public at the House on prison education.

The questioning, especially if Chris Price and Patrick Cormack were both on the trail with the scent of a cover-up in their nostrils, could be gruelling indeed. But it was rarely acrimonious. Only once in my observation did the Committee overstep itself and abuse its privilege. They were asking the National Secular Society and the British Humanist Association about religious education, but in such in-temperate terms that one was left wondering why they had bothered to invite them.

At other times, it could be conducted with a nice restraint. "Could you imagine any circumstances under which the Secretary of State might intervene under Section 99?" the chairman asked Walter Ulrich of the DES. "Yes I can," he replied. "Suppose a secondary school offered no science and no modern languages..." The Committee reported: "This seems rather drastic."

Elsewhere the Committee could use their superior (and growing) expertise to lay snares for the inexperienced. David Young, chairman of the MSC, was trapped into saying that he was a great believer in mixed ability teaching. Further questioning revealed that he was

actually a great believer in streamlining. Geoffrey Holland, director of the MSC, was asked by Patrick Cormack for the name of the director of the New Technical and Vocational Education Initiative. "I would rather not say at the moment, unless you press me," he replied. Poor Geoffrey Holland. Someone should have told him that you never say "unless you press me" to a Select Committee.

What have they achieved? It is difficult to be clear about this. The Select Committee has become part of the educational scene, a significant factor in a service where the government department is not exclusively responsible for the system. It has provided a new forum for pressure groups, a new forum for the critical exploration of government policy and practice. The very existence of such a committee seems to have changed the way government behaves, even though the effects cannot always be directly attributed to the Committee. Was it, for example, the Committee's alertness that forced the MSC's New Technical and Vocational Initiative into the arms of the I.C.S.S. or would it have happened anyway?

The most serious and lasting achievements concern the opening up of information which might other-

wise have remained concealed. Committee's vigorous questioning got Miss Browne, the Senior Inspector, to name the inadequate in provision for modern folklore. There was reticence on the subject, but a little doubt that secrecy will be difficult in future. And the Committee's sessions with Miss Browne have served to reinforce the independence of the Inspector from the Secretary of State, even possible that the decision to make HMI reports public is something to the Committee's credit.

The achievement was less when it came to getting the Government to follow their recommendations. Nevertheless, there were some striking effects. Once Mr Waldegrave had taken over the higher education seat at the Government, did not agree to set up the National Advisory Board for local authority education, broadly along the lines recommended by the Committee. On the curriculum, the Committee was certainly influential in the DES to propose direct of priority pilot projects in education system, thereby removing the anomaly which allowed the Department of Industry, the Home Office to do such but not the DES itself.

It may be that time will about the direct funding of language assistants which the Committee wanted, and the suggestions for changes in curriculum powers of governors. It is eminently reasonable that school meals encountered a blank wall.

Specialist though they are, committee members are also extremely busy people. It is wrong to deny that they always read their briefs, and that advisers will come to them there are few experiences with training than sitting mute in a committee which clearly has mastered the key issues, or fails to ask the crucial preliminary question.

The choice of subject, sometimes unfortunate, is complex, and charged, and the secondary school curriculum not an ideal one for MPs. Also there is some extremely useful material in the final report, or in the Members' frustration, or in the common-sense advice which come uncontrollably slipping from hands, or else become immortalized in the face of expert witnesses. On one occasion, the Committee attempted to persuade the Senior Chief Inspector that we like history and English were to teach while others like physics were difficult. Miss Browne allowed herself to look as if she never heard a more outrageous proposition in her life.

They were very good at responding to events. They did learn the value of a report from the Proms, university cuts, or the caving national film archives, and the publicity which their presence could command. They were also extremely effective in exploiting the corners of the system. Prison education, for example, was an interesting topic. For the future, it would be interesting to see this vein explored further (hospital education), where the curriculum is so much where the curriculum is so much expected to have something to contribute (political education).

However, venacious it may be to government, the new Select Committee system is almost certainly confined. No government will be possible to withdraw such a powerful facility for back-benchers. The Liaison Committee (of all chairmen) is likely to increase its influence. It is a permanent presence on the scene. The pressure group, or, I.C.S.S. which does not get the maximum use of the Committee has only itself to blame.



Under interrogation: Sheila Browne, Rupert Murdoch, Geoffrey Holland and Martin Lightfoot.

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NEWS

Languages paper hailed as aid in halting decline

by Nick Wood

Language teachers have reacted with undisguised delight to the long-awaited DES consultative document on foreign languages - intended as a first step in drawing up a national policy on the subject to stem its alarming decline.

Mr Alan Smalley, honorary secretary of the Modern Languages Association, the largest and oldest subject association for linguists, said the document was "very encouraging and forward looking".

Its tenor and content fitted in with the MLA's policy statement on languages and dovetailed neatly with the guidelines produced for the proposed new exam at 16-plus.

"We are particularly glad that the DES has acknowledged that there is a problem in modern languages that we have been talking about for years and showing the determination to do something about it."

"Of course, it might be a question of the Department putting its money where its mouth is, but it is not just money that's needed. There's also the matter of understanding the needs of languages and linguists are getting these across to the community at large."

MLA representatives would shortly be meeting DES officials to give their detailed response to the Department's thinking which ranges across all aspects of language teaching in schools.

"A lot of things are coming together," Mr Smalley said. "It's a matter of what we have to say."

"There are difficulties in selling the idea of a national policy on languages - it smacks of centralized bureaucracy which is foreign to the English tradition - but the DES has sensed there is a change of attitude and that a national policy, locally administered, is the ideal compromise."

The 15-page document, put out jointly by the DES and the Welsh Office, for the most part adopts a discursive tone. In its coverage of topics such as the place of modern languages in schools, the present health of language teaching, the place of the subject in primary, middle and secondary schools, the

choice of language to be studied, in-service training and constraints on change.

But it is also didactic at times. It says modern languages face "serious problems" in schools and that there are "cogent reasons" for reducing the dominant position of French.

It advances both utilitarian and intellectual reasons for according languages a central place on the school timetable.

It succinctly sums up the state of languages in schools. "The picture that emerges is that the attempts to change the emphasis of foreign language teaching have had limited success. Many more pupils make a start in learning a foreign language, but a majority drop out without having completed a full course of study. Too few school leavers, especially boys, have a reasonable proficiency in a foreign language."

After dismissing the case for children studying French at primary schools, the DES focuses on the compulsory years of secondary education as the main starting point for action. Policy decisions need to be taken on five counts:

- The case for all pupils beginning to learn a foreign language at 11.
- The possible postponement of the start of foreign language learning for some pupils to age 12, 13 or 14.
- The means of identifying those, if any, for whom foreign language learning is not appropriate.

The document also points out that the benefits of language learning are not confined by the MLA.

● The resource and other implications of differentiated provision for different groups of pupils.

The document concedes that the second foreign language faces extinction. It suggests that local authorities and schools combine to ensure that a variety of languages are given top priority in each area of the country.

Foreign languages in the school curriculum is available free from room 396, Department of Education and Science, Elizabeth House, York Road, London SE1 7PH. Comments are requested by October 31.



Methodist assembly: Design studies master John Allison reconstructs a pulpit used by John Wesley, founder of the Methodist movement, which has been discovered at Kingswood School, Bath. The pulpit, which had lain unnoticed in a basement storeroom, originally came from the chapel of the model boarding school Wesley established at Kingswood, near Bristol, in 1748. Mr Allison is to rebuild the pulpit with the help of fourth and fifth form pupils.

ILEA appoints equal opportunities monitors

by Hilary Wilce

The Inner-London Education Authority has completed the task of selecting the equal opportunities team which will monitor and enforce the authority's positive action policies on sexual and racial equality.

The team includes Ms Joyce Redfern, previously industrial relations officer with the British Medical Association, who will be responsible for equal opportunities among the authority's non-teaching staff; Ms Elizabeth McGovern, education officer for community relations with the Hackney Council for Racial Equality, who will handle equal opportunities among teaching staff; Ms Marilyn Burchell, formerly an education liaison officer with the ILEA, who will be responsible for

equal opportunities in the multi-ethnic and race relations fields; and Ms Jean Cousins, deputy director of the Child Poverty Action Group, who will be responsible for equal opportunities for women and girls. They will take up their positions over the next few weeks.

Ms Carol Adams, warden of the ILEA's history and social sciences teachers' centre, will become equal opportunities adviser in September.

Mrs Sylvia Denman, a barrister and former member of the Race Relations Board and Equal Opportunities Commission, was appointed to head the equal opportunities team earlier this year. She takes up her position next month.

PAT head falls foul of STOPP over cane

by Richard Garner

A school whose head is a member of a teachers' union has become the centre of a controversy over its corporal punishment policy.

The Society of Teachers to the Physical Punishment, the caning pressure group, says four parents with children atbury Grange school in whose headmaster is Mr Lambell Lambert, the press officer of the 22,500-strong Professional Association of Teachers, have made complaints about the school's European Commission on Rights.

The group's annual report on the Violent Teachers: a beating reported to STOPP 1982, says that parents more than 100 signatures petition about canings at the school.

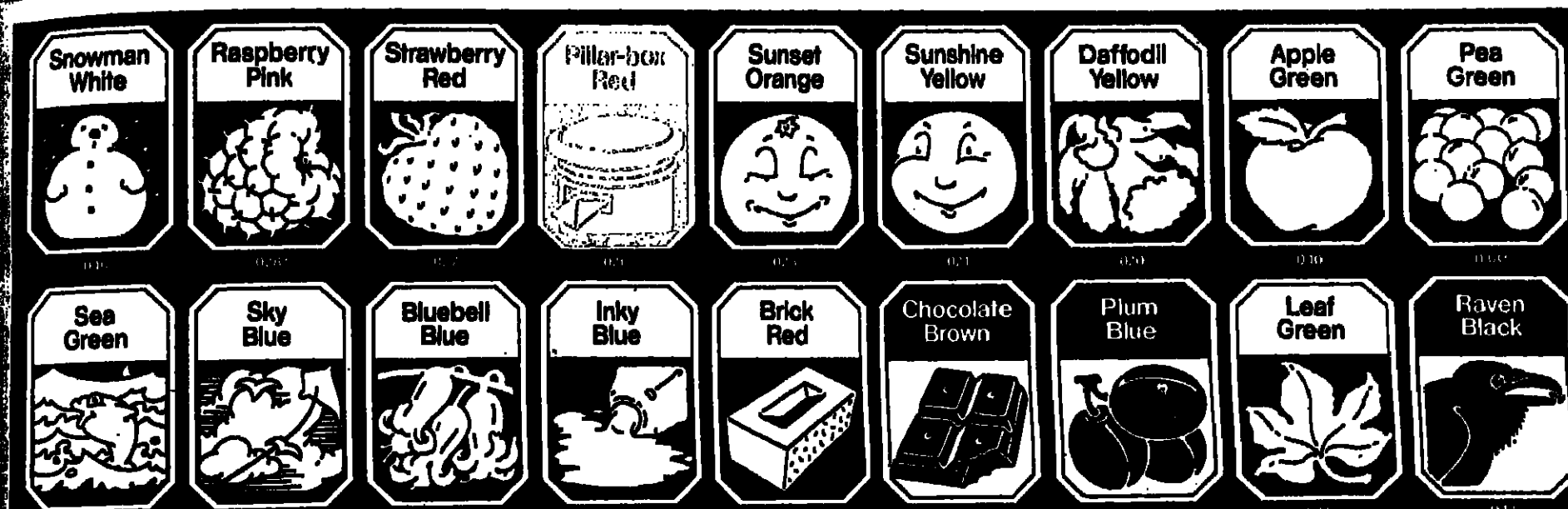
It says that the four cases one of a 12-year-old boy was caned for forgetting his book although the school had offered from asthma and cough.

The other cases are a boy who had to be taken to hospital after being caned, and a boy given two strokes during a lesson.

The school for refusing to be caned, STOPP says the parents of the first three boys have complained to the European Court in Strasbourg on the grounds that the caning inflicted against their wishes, degrading and thus a breach of the European Convention on Human Rights.

The fourth boy's father said that the suspension was a breach of his son's right to education, also flouted last year's ruling by the European Court on the case of Scottish mothers, who had been that parents did have the right to insist their children were not subjected to corporal punishment.

Mr Mitchell Lambert said he had been instructed by his union to play no part in the case. Mr Peter Dawson, general secretary of the PAT, said that he had spoken to Mr Mitchell Lambert about the case. "On the basis of what he has mentioned, there would be no case to be absolutely no case," he said.



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David Lister reports from Vienna on the Council of Europe's move to extend social democracy

Early human rights start urged

Children should be taught about human rights as early as the first years of primary school, foreign ministers from 21 European governments including the United Kingdom will be told later this year.

The ministers will be asked to endorse a detailed Council of Europe resolution, which was worked out at an international conference run by the council in Vienna last week.

The resolution's recommendations range from the active encouragement of human rights education and in-service courses for teachers, to more immediate, realistic goals such as rearranging classrooms so that pupils can sit in groups rather than rows to aid group discussion, and elected school councils in primary schools.

Delegates were keen to stress that human rights education should involve not only the conventional idea of writing letters to political prisoners and studying the lives of figures such as Gandhi and Martin Luther King, useful as these are. It was important that pupils should be allowed to participate in decision making.

Mr Hugh Starkey, lecturer at Westminster College in Oxford told the conference: "Human rights have often been seized on by political groups as an issue to be used to attack regimes with which they have major ideological differences."

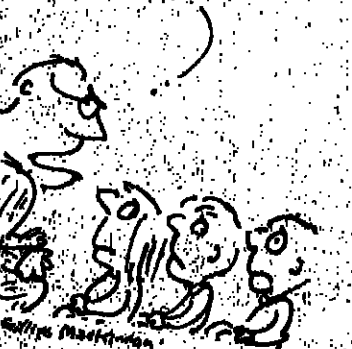
Human rights education must avoid becoming a vehicle for political or ideological propaganda of any sort. While it is legitimate to illustrate concepts of human rights through examples of cases where these rights are not observed, these must be balanced and should not be used to obscure any imperfections in communities nearer home.

"Human rights education may indeed occur without the need to mention the concept of human rights until an age when pupils can understand such abstract notions. It would be education for mutual respect and tolerance, according equal value to individuals, being supportive of minority groups and including working cooperatively."

Very simple activities could take place in primary schools - remembering every child's birthday and clapping the names of every child rhythmically.

Ian Lister, professor of education at the University of York, admitted to a need for a change of style and method for many teachers. Conventional frontal teaching would not be sufficient. Teachers would obviously have to develop skills of discussion. They usually used questions as a means of social control and rarely

Your Human Rights are guaranteed, Hestair, so long as you sit still and shut up!



asked questions to which they did not know the answer. True democratic discussion in the classroom frightened some teachers but it was essential, along with an increased use of drama and role play in class, for successful teaching of human rights.

Margaret Quass, director of the Council for Education in World Citizenship, warned the conference that in Britain as in many parts of the world a subject had to be examinable to achieve status.

Delegates also backed a Council of Europe parliamentary assembly call for the systematic teaching of non-violent behaviour to be an integral part of all compulsory education. The increase of terrorism in Europe is one major reason why they wanted to see non-violence discussed in schools. The appeal of the film Gandhi among the young and the upsurge of interest in his life had given the subject an additional piquancy.

But it also became clear at the conference that there are deep and urgent fears that mass unemployment could lead to an explosion of violence.



Maitland Stobart, who told the Council of Europe school education division told delegates in a speech that education for democratic citizenship had taken on a new urgency. Some 17 million people were unemployed in the 21 countries which come under the aegis of the Council of Europe, 40 per cent of these are under 25.

"There is a danger that people, having gone through school systems, could become disillusioned by our society and its values and its institutions. We have seen the growth of violence working very often among migrants and other communities. We have seen the growth of a million semi-skilled and unskilled workers with five million children have come to Europe in the last few years."

"The growth of violence and terrorism, the reawakening of nationalisms and the resurgence of fascist and racist ideologies causing considerable concern."

"One fact in our favour is the spontaneous interest of young people in human rights questions."

NEWS

Exams cause of narrow teaching

by Virginia Makins

The bad effects of exam syllabuses, and the way they lead to narrow and "didactic" teaching, are documented in HMI reports on several comprehensive and one prep school.

At Lyndhurst House boys' prep school in Hampstead, London, the seven to nine-year-olds have a varied programme of work, with plenty of encouragement to discuss and think things out for themselves, says the HMI.

But in the senior forms for 10 to 13-year-olds the Common Entrance requirements take hold. "The intellectual challenge to boys tends to diminish as they get older, with greater emphasis on the ingestion of facts than on the exercise of intelligence."

In French, concentration on grammar has meant that "oral and aural competence of many boys has suffered". In Latin, boys become competent at exam requirements "by dint of practice", but are "not trained to regard language as conveying a sensible message."

In English, the range of writing gets narrower and "more pedestrian" as the exam approaches. Geography and history promote passive learning rather than intellectual stimulus. In maths, mathematically-

minded pupils are not sufficiently stretched by teaching that concentrated on techniques for CE.

HMI praise the school for trying to keep a balanced curriculum, with some music, pottery, games, science and humanities, even in examination years. They found that the school was very successful at its "prime aim" of getting boys into London public schools.

The school had a wide range of extra-curricular activities, and teachers were very committed. But HMI suggest they should reconsider basic educational aims across the subject barriers, and work out teaching methods that fit both those aims and exam requirements. They also suggest in-service training to help to "combat the risk of professional isolation".

The Neithall School in Cambridgeshire also showed a narrowing of teaching, and a curriculum seen "very much as a series of distinct, mainly academic subjects", as exams approached.

The school is an 11 to 18 comprehensive serving favoured residential areas. After a short inspection, HMI found generally happy, hardworking and academically successful pupils, and staff who "work very hard under considerable pressure" and

were showing "some signs of strain".

There were difficulties caused by a split site, which required duplicate resources and wasted staff time and energy. Work in the lower years was often thoughtful and imaginative - though the craft subjects needed to move from emphasis on skills to design.

HMI praised the high standard of oral work at all levels, and generally good exam results. They suggest that the needs of less able students need more consideration.

Hainault High School in the London borough of Redbridge is a split site school with a much less favoured catchment area. Some 10 per cent of local 11-year-olds go to grammar schools.

HMI found that the school had recently tightened up on work, discipline and uniform, improved communication with parents, and won growing support from them. The school had a favourable staffing ratio, at 1:15.6, but 40 per cent of staff had to commute between the two sites, over a mile apart.

The school's pastoral systems are praised (though, as for many schools, they visit, HMI suggest that form tutors should be told what they're supposed to be doing in tutor time). Attendance was improving; in the previous September it ran at 91 per cent and in July 84 per cent. Links with primaries were very good, and developing. The library was inadequate for many subjects, and pupils who wanted to take science textbooks home had to buy them.

HMI found some timetabling anomalies in the first three years, and an urgent need for careers advice before fourth-year choices. One of the fifth years was too narrowly focused on exam requirements, and far too many pupils were entered for both O level and CSE. More pupils should concentrate on CSE, they say.

"Heavily didactic" teaching and the limited chances for pupils to discover things for themselves led to "a reduced capacity to understand important ideas" and the resulting "modest standards" of work were a poor reward for the commitment of pupils and teachers, say HMI.

The sixth form had particular problems. It started in 1980 with 14 students and now had 77. The school could offer only limited options - no languages, and physics the only science among the nine A levels, limited O levels and CSEs and a new commerce course.

There are no general studies - an important area of pupils' "limited horizons and social experience", say HMI.

Art teachers failed to encourage pupils to use their school's good library, and often did not use their good audio-visual resources systematically. Links with primaries were non-existent in five schools, and just beginning in two.

Surprisingly, there were no links with craft, design and technology departments - in one school, with art and CDT facilities side by side, safety regulations were blamed.

Three-dimensional work, apart from ceramics, was often neglected; only one school had students working in plastic and metal, and HMI found a high standard of craftsmanship and design there.

One of the most successful departments, at Homerton House School, Hackney, in "the most visually deprived locality of all" had a dramatic puppet studio (pictured above) which won HMI's enthusiastic approval.

HMI. The school should review its 16 to 18 provision, trying to provide both a general core and a firm platform for further academic or vocational work.

HMI had particular praise for the sociology department at Hainault: the subject was popular, and the teaching contributed to the pupils' language development, writing and general education. "A valuable contribution is being made to the academic and personal development of the pupils through this subject", say HMI.

Eighteen per cent of the 11-year-olds in the catchment area of Chapel en le Frith School in Derbyshire choose to go elsewhere. The school is an 11 to 16 comprehensive, and is clearly not helped by the poorly

maintained buildings which affect its "quality as a learning environment", according to HMI.

Teachers also have to contend with a higher than average pupil-teacher ratio, at 18:1, "barely satisfactory" ancillary help (cut by 10 per cent in 1980), and "some serious deficiencies" in resources.

Textbooks, even though well looked after, were scarce and outdated, and parents had been asked to buy science O level texts. The library, now recovering from "a long period of neglect", was understocked and had to be used as a classroom.

HMI found several drawbacks to the timetable for the first three years. Teaching of low ability children, though "caring", was "repetitive and restrictive". It should be changed to cover the whole curriculum.

Abler fourth and fifth years had a reasonable choice of subjects, but provision for the less able was "less than satisfactory". A new course on Education for Society was a promising development.

The school has an ambitious exam policy, which paid off - 82 per cent of fifth-years were entered, and only 2 per cent ended with an ungraded CSE. Pupils' behaviour was all right in class, but could be "aggressive."

Both academically and vocally, and contributed to the school's good name in those fields.

Staff-student relations were very good, and quality of work was impressive, and helped to enrich the undergraduate course.

Mr Archie Joyner from South Yorkshire, opposed the motion as he said women's education would suffer if money was spent on a national, official, instead of being used at grassroots level.

A plea for an end to "the stop-go, short-term plans" for basic education was made last week by Mr Alan Wells, the director of the

conference had agreed to creating this job but the national office had failed to get the Department of Education and Science and the Equal Opportunities Commission to fund it.

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A plea for an end to "the stop-go, short-term plans" for basic education was made last week by Mr Alan Wells, the director of the

Adult Literacy and Basic Skills Unit.

Speaking at a conference in London to launch a discussion on good practice in this field, Wells urged every local education authority to produce a development plan for basic education.

He said only 0.1 per cent of education budget was spent on education. And he deplored the status, salary and working conditions of teachers.

The report, which will be issued in a series of seminars across the country in the next few weeks, also recommends a minimum ratio of one full-time equivalent teacher to 100 pupils, and a full-time officer should be in charge of coordinating basic education every 100 pupils.

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and harsh" outside it: the "largely unsupervised" breaks had caused some damage.

Pastoral systems tended to be from one emergency to the next and regular monitoring of all academic and pastoral progress needed. The head should have more teachers in decisions, and critical appraisal of pastoral HMI.

Things are much better at Coombe Dean School, a 100 comprehensive in Plymouth, von, HMI conclude, on the basis of a short inspection, that it is an impressive school in almost all respects.

In the seven years since it was founded, the school has had good relationships between staff and pupils and a pleasant atmosphere, the report says, despite cramped accommodation. Staff have high expectations of their pupils and appear to be fully justified in results are "notably good".

Inspectors saw work of high quality by both able pupils and the lower academic ability. The school dominates at all times and the atmosphere is low.

HMI praise the leadership of senior staff and the care with which all the teachers are developing more support staff to be pastoral staff, who had a good undervalued.

Ousedale School in Newport, Gwent, was inspected, mixed assessment. The school, founded in 1811, was a small size since it was formed in 1911, now has nearly 1,500 pupils.

The school also suffers from large problems, as it is a large rural area from a public school rather than in the city.

However, as a community school "gives the impression of being happy, hard-working, orderly", the inspectors concluded following a short inspection.

The school has a good reputation for achieving good results but methods tend to be didactic rather than stimulating and creative.

The less able, too, could do a more flexible approach. About per cent of pupils now achieve a mixture of the lowest CSE and in four to six subjects. HMI note the extension of mode 3 work to this group.

Mr Ernest Chambers, Conservative spokesman on education, said the timing of the closure was the whole issue all over again," she said.

Mrs Gilbert believed Nottinghamshire would have an unfair advantage next time because the school was less popular now as a result of renewed uncertainty. "If only the school was allowed to remain stable we believe it would be full and have a waiting list by September."

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Non-sexist books help to broaden reading

by Hilary Wilce

An awareness of sex bias in children's books will widen the range of books available in the classroom, according to a Schools Council study.

Teachers concerned about the problem will not simply edit books which offer stereotyped sex images but seek out books which portray neglected areas such as women's history or men's role in child care, says the author of a study of sexism in children's books.

Ms Rosemary Stones says criticism of children's books on social grounds is as valuable as traditional literary criticism, and does not inhibit creativity. "The increasing number of good non-sexist picture books is one concrete demonstration

that social concerns do not inhibit talent when it is to be found," she writes.

Her summary of research into sexist attitudes in children's books includes a survey of Scottish primary school textbooks which mentioned 105 possible careers for boys but only 25 for girls.

A survey of physics textbooks used in England in 1980 showed that 80 per cent of illustrations portrayed only males, while 8 per cent portrayed only females, who appeared "in a bathing suit, in a bath, as a nurse, or with a vacuum cleaner".

A survey of chemistry textbooks carried out a year later turned up 258 illustrations of males, compared

with only 26 of females. The pamphlet lists 50 questions teachers can ask about children's books, ranging from: "Do the females in the book only play a subsidiary role?" to "Have the author and/or illustrator based the book on accurate information about sex roles in other cultures and depicted them with sensitivity and dignity?"

The pamphlet's title comes from *Go Ahead Secret Seven* by Enid Blyton in which Peter says: "Pour out the cocoa, Jane, and remember that we like heaps of sugar." *Pour out the cocoa, Janet: sexism in children's books* by Rosemary Stones. Published for the Schools Council by Longman £1.55.

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PRIMARY

Nottinghamshire bids to shut school granted reprieve by the Education Secretary three months ago
Parents face fresh fights as county renews closure attempt

by Sarah Bayliss



Sir Keith: rejected closure notice on Merrivale

Parents who won a reprieve from Sir Keith Joseph, for their children's nursery now have to mount a fresh fight to keep the school open.

The parents whose children attend the Merrivale nursery school, Nottingham, are faced with the prospect that the county council is planning to publish a new Section 12 closure notice on the school, just three months after the Education Secretary rejected a similar notice.

A meeting of Nottinghamshire Education Committee rubber stamped the move last week and the county intends to close the school by July.

Mrs Stephanie Gilbert whose daughter Naomi, aged 3, attends the school and whose daughter Claudia, 5, recently left, said this week there ought to be a compulsory period of at least two years between one closure notice being rejected and another being published.

"We went to tremendous efforts to present our case and the whole issue created great uncertainty. We are pleased that within a few weeks of losing its case the county is raising the whole issue all over again," she said.

Mrs Gilbert believed Nottinghamshire would have an unfair advantage next time because the school was less popular now as a result of renewed uncertainty. "If only the school was allowed to remain stable we believe it would be full and have a waiting list by September."

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out of "political malice and prejudice" against a highly successful and popular school.

Many of the parents were professionals who worked at the university and local medical school and did not come from a particular neighbourhood. The Labour group preferred to offer nursery education in areas where it considered social needs were greater.

"It is quite blatant prejudice against this particular group of parents," said Mr Chambers.

Mr Fred Riddell, Labour chairman of education, said a Section 12 notice would be re-submitted because the Education Secretary "had some difficulty in disentangling this case from the rest of the package."

He hoped Sir Keith would recognize that the school represented an inefficient use of resources. "It's a clapped-out building which needs a lot of money spending on it." The savings would provide many more new places.

Mr Riddell confirmed that it was the council's policy to develop nurseries in relation to primary catchment areas serving local needs. The county was one of the best providers, offering 40 per cent of under-fives a nursery place.

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NEWS

Diane Spencer reviews the controversial issues waiting for delegates to the NATFHE conference in Blackpool

Storm clouds gather over women and CND

A second round of controversy is likely at the annual conference of the college lecturers' union this weekend, despite the conflicting demands of the General Election campaign.

Delegate ranks might be depleted with more of the politically minded than from the conference floor in Blackpool tomorrow, Sunday and Monday. However, there will be enough lively issues to keep the secretariat and executive of the National Association of Teachers in Further and Higher Education on their toes.

One of those issues, which has dragged on from last year's conference in Newcastle - which had to compete for attention with the Falklands conflict - concerns the rule change in the union's constitution, allowing it to take part in non-party political activity. It received the necessary two-thirds majority of delegates then went on to vote to affiliate to the Campaign for Nuclear Disarmament.

Many members were unhappy with both these decisions, and about 300 resigned. One group collected more than enough signatures (about 10,000) to requisition a special conference to rethink the issue. Delegates met in December and were persuaded to consult branch members on their views on disaffiliating from CND and on the rule change rather than holding a ballot.

Results of that exercise show it is a matter of some controversy. Members will also be faced with several other proposals to change the constitution to give women a bigger say in the running of the union.

When form 27 per cent of NATFHE's membership but are under-represented on decision-making bodies and in key posts, says Ms Paula Lanning, the union's information officer and editor of *Star*, a NATFHE newsletter.

Only 7 per cent of the all-impor-



Bill Hoard ... move to the Right

tant liaison committee secretaries are women, and so are 15 per cent of branch secretaries. Conference delegates do better at 25 per cent. "The real problem is one of under-representation at grass roots level", said Mr Keith Scribbles, assistant secretary. The northern region has tabled a handful of resolutions to ensure that a certain number of seats are reserved for women on the various councils and committees.

The executive, on the advice of the women's national panel, has decided to ask for these to be remitted so they can be discussed by a newly formed working group on women.

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Peter Dawson ... a hard year

Apart from the broad and bitter issues of pay and conditions of service, to which the whole of Sunday is devoted, the conference will also discuss the National Advisory Body - whether NATFHE should withdraw its representation; the Youth Training Scheme - how to improve the educational input; and teacher training - opposition to increasing central control of content and structure in initial courses.

One shock for delegates will be the NEC election results. Mr Malcolm Lee, immediate past president, and Dr Peter Knight, a former president, have both been elected to the conference on CND, have failed to win election. The executive is now more to the Left, while Mr Bill Hoard, vice-president-elect, for the third year running is more to the Right.

Mr Peter Dawson, general secretary of the union, said it had been a hard year. "But despite the internal difficulty with the CND issue, we have successfully resisted threats of redundancy and deterioration in conditions of service. And we have maintained a strong membership."

Exams' powerful hold on staff and pupils is condemned by head

by Sarah Bayliss

Examinations have served as a powerful motivating and controlling force for 60 per cent of pupils, a conference was told last week.

Mrs Anne Jones, head of an outer London community school, said that teachers had also been dependent on exams for too long.

She told a national conference called "Curriculum Issues: 14-19", organized by the School Council that the exam system had made 40 per cent of pupils feel rejected and rebellious. Mrs Jones added: "It is a terrible thought for today: if the exam system did not exist would it be necessary to invent it?"

Teachers could no longer threaten that unless pupils worked hard to pass exams then they would not get a good job. In the recession it was clear to everyone that qualifications were no guarantee that paid work would follow.

Mrs Jones, who was at Leeds Polytechnic addressing the first in a series of four national conferences, said comprehensive schools had done little to change the grammar school emphasis on individual academic achievement. There was not enough stress on physical, practical, creative, expressive, social, political and moral skills.

There was no guarantee that a comprehensive school pupil got a comprehensive curriculum; as a result some pupils continued to have a built-in sense of failure and rejected education.

Comprehensives had also failed

by perpetuating the divide between academic/intellectual and technical/vocational work.

Government's Technical and Vocational Education Initiative was to help all pupils master technology.

Mrs Jones, who is head of Cranford Community School in outer London borough of Hounslow, advocated a secondary curriculum with a common core for all pupils. The core was likely to include communication and language, mathematics and science, technology, expressive arts, and environmental studies, social and economic development, spiritual and recreational studies, personal skills and skills for living.

The split between education training should be removed, should have more say in what is studied and methods of assessment should be changed to involve more.

In her own school where a curriculum working party was dealing the issues, the most change to make was in the styles. The aim was to take account of processes, the values at the same time as academic excellence.

The three other conferences held by the Schools Council in London on June 13, "Pupil and staff development", Coventry, June 29, "Teacher's culturally-diverse society".

Education will suffer most from cuts - TUC

by Richard Garner

The Government is planning to cut education spending more sharply than almost any other sector of the economy, according to a report published by the TUC this week.

A TUC guide for trade unionists says: "Our education system might be one of the most advanced in the world - but it is still not geared to life in a modern industrial society. This is bad for industry, bad for employers and bad for the country as a whole."

The document - proposals from which were leaked in *The TES* a month ago - has been published after discussions within the Education Alliance, and amongst trade unions represented on the TUC's education committee.

It says: "Government ministers today no longer support this country's proud tradition of a free, national publicly-funded education service. They believe that people should pay for education from their own pockets - too bad if you can't afford it."

"Education ministers talk a lot about 'freedom of choice'. This means wasting public money on schemes to let parents shop around for their children's schools, using vouchers to buy education like bags of potatoes."

Administrative appointments: Mr Roy Jones, Devon County Council's senior assistant education officer for schools, becomes director of the new South West Management Centre for Primary Schools, based at Rolle College, Exmouth.

Mr J Dawson, of Leeds Polytechnic, was elected chairman of the Association of Polytechnic Teachers, and Dr Tony Poulton, of Portsmouth Polytechnic, re-elected as national secretary at the annual council meeting this month.

Mr David McGahey, aged 31, an

"Ministers also want to see schools growing or shrinking in line to demand. This means parents who can, for example, house or pay high but or low fees would get their children into particular schools. Other parents, majority, would be left with no choice."

There should also be new bodies to make school governing bodies upon local authorities to provide services for the under-fives and on them to give local grants to be spent on their own lives.

It argues that spending on education should be increasing, i.e. a.s. provide support for teachers in better-qualified and more in-service training, meals and milk service restored.

A new representative Council should be set up with power to change the school curriculum, selective schools should be abolished, financial support to the private sector from public funds should be forbidden.

There should also be new bodies to make school governing bodies upon local authorities to provide services for the under-fives and on them to give local grants to be spent on their own lives.

Mr John Chown, aged 55, an army education officer, becomes deputy general secretary for the National Association of Head Teachers, next January.

Private study on YTS accepted as off-job training in travel field

A form of private study by trainees is being accepted by the Manpower Services Commission as part of the mandatory requirement of off-the-job training and education for the Youth Training Scheme. It means that employers can cut down on the 13 weeks of tuition which they normally buy from colleges or other training institutions.

The Association of British Travel Agents has signed an agreement with the MSC under which 1,000 youngsters will be given "distance learning packs" to study while at work. Because the scheme has been negotiated nationally, it does not have to be submitted to area manpower boards for approval like the majority of projects.

The £2m programme is being run by ABTA's training company, which is taking overall responsibility for the youngsters. The company will collect the Government grant and place the trainees with employers.

About 400 of the trainees are expected to be regarded by the firms who take them on - mainly retail travel agents - as staff who will be kept on after their YTS year. The rest will only be attached for work experience and have no claim on a future job.

Some of the trainees are being recruited directly by employers, but most are being selected at recruitment conferences organized by ABTA in conjunction with local careers services. Mr Don Calder, ABTA's training director, says that many YTS schemes recruit only in the June-September period so that they are likely to cater largely for summer leavers. By contrast ABTA is taking on youngsters all the year round, which gives an opportunity to early leavers.

The trainees attend colleges or other training centres for eight weeks, on a mix of block and day-release which varies throughout the country. They also do a week of residential

training which is likely to make them the envy of most of the other 450,000 trainees in the YTS.

It consists of a trip to a Mediterranean resort to study holiday facilities and learn about various kinds of accommodation; the trainees will be sampling a range of hotels including luxury establishments. The idea has been inherited from the training agency staff under the now-discontinued Unified Vocational Preparation Scheme.

But the foreign visit still leaves the total of off-the-job training and education at nine weeks - four weeks fewer than the minimum guaranteed by the Government to all trainees. Instead, the trainees will be given time off at work to study a series of packages intended to get them through the travel trade's proficiency examinations.

Mr Calder claims that the arrangement is a valid form of off-the-job training, and that the youngsters will be adequately supervised by their employers or, if necessary, by visiting ABTA staff.

He says that he has allocated between £100,000 and £150,000 for the total supply of packs.

There are strong reservations about the idea among staff at some of the 23 colleges ABTA is using. The principal of one of them says: "It is expecting a great deal from youngsters, many of them unemployed, to be motivated to undertake self-directed study of this kind. They need the close support of college staff or visiting tutors."

Mr Mick Farley, NATFHE's assistant secretary, said that he would be protesting to senior MSC officials and would ask the Youth Training Board to intervene. "This is a betrayal of the YTS concept and a misuse of the provision for off-the-job training and education," he said.

SCHOOL TO WORK

Manpower boards accuse MSC of election 'gag'

Members of area manpower boards in many parts of the country are angry at restrictions which Manpower Services Commission officials want to impose on them during the election campaign. Several said *The TES* this week to protest at what they called an attempt to "gag and bind" them.

The officials, in a letter to the chairman of the 54 boards, are invoking the convention that government activity other than vital day-to-day business is suspended during election campaigns to demand that area boards restrict themselves to dealing with scheme approvals and that members refrain from talking to the media.

The protesting members say that chairman are as a result ruling out of order attempts to raise serious and urgent issues of principle, such as the crisis which threatens college-based courses from competition by private training organizations.

When the Birmingham and Solihull board met this week the members insisted on deferring approval for a number of schemes put forward by private trainers. They included one from a city councillor who plans to run a scheme for 80 youngsters from his house.

But members were told they could not discuss their anxieties about the procedure under which schemes are being approved nationally by the MSC's Large Companies Unit without consulting them, or a proposal that they should insist on the local arrangements for such schemes coming to them for approval.

Mr Paul Mackney, Birmingham secretary of the National Association of Teachers in Further and Higher Education, who is a member of the board, said that he was being asked to approve 1,910 places in private training schemes which amounted to nearly a sixth of the area's targeted provision. Only a handful of college-based

places were now being considered. Last week's *TES*, reporting fears on Merseyside that colleges would find a large part of their expected Youth Training Scheme work would disappear because of the new competition, also disclosed that employers in the region were indicating that they would use the colleges for only a small part of the 13 weeks off-the-job training that they are supposed to provide

Edited by Mark Jackson

for their trainees. Mr Mackney says that employers are behaving in the same way in Birmingham: the average period of training that they are buying from the colleges is seven weeks, with some asking for only two weeks per trainee. The average, Mr Mackney explains, is boosted by high quality schemes being run by industrial training boards which provide for considerably more than the 13 weeks of instruction in colleges.

Mr Mackney said he was not prepared to accept that government officials had a right to silence area board members at a time when crucial issues relating to the YTS were being discussed publicly, and when ministers were making all kinds of controversial claims. "I believe we have a duty to the public to make our views known", he said.

From Avon, another NATFHE-nominated member of an area board, Mr Harry Eames, rang in similar defiance of the ban to say that he and colleagues were worried about the low quality of off-the-job training being offered by many of the employers who were making arrangements outside the colleges.

He said that boards were being deprived of the information that they needed to assess the training proposals, because the space on the form being used was only enough for about 30 to 40 words. If Mr Eames is right, it would appear surprising that local MSC officials are putting the schemes forward since, according to Mr Peter March, Avon's principal careers officer, the area has a surplus of promised places.

He says that Avon looks like having 10,000 places available for only 6,000 eligible youngsters, and that serious consideration is being given to trying to make some of them available on a residential basis to youngsters from outside the area.

YTS shortfall may leave colleges with surplus staff

by Mark Jackson

Colleges will be left with a surplus of staff if the YTS shortfall is as large as some estimates suggest, according to a report by the National Association of Teachers in Further and Higher Education.

The report, which is being published in the *TES*, says that the YTS shortfall is likely to be as large as 10,000 places.

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From last week's *TES*... a controversial issue on which manpower boards must remain silent.

Details sent to all Schools during February, additional supplies available on request from the Bookings and Enquiries Office.

Education is fun at Thorpe Park

Thorpe Park has always believed that 'Education can, and should be fun'. Since its opening in May 1979, the Park has welcomed almost 400,000 children in organised school parties. Each season we have added to our educational attractions, and in 1983 we are including the Treasure Island ride, based on the popular children's book written by Robert Louis Stevenson (1850-1894).

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THORPE FARM - At Thorpe Farm we have created a working farm of the 1930's. As well as the animals, machinery and craft centre, the farm buildings in many cases date back to the 18th Century and are of considerable interest.

SEASON - The Park Summer Season starts on Sunday 27th March, 1983 - Weekends only from 16th April-28th May inclusive - and closes on Sunday 11th September, 1983.

Whilst every effort will be made to ensure that the attractions are as advertised, certain facilities may temporarily not be available. The Management reserves the right to alter opening times, and admission rates without prior notice.

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Bradford finds minority teenagers stay on more

A record number of teenagers from Asian and West Indian families stayed on at school in the last academic year in Bradford, according to a new booklet of statistics by the education authority.

Four out of every ten pupils from the ethnic minorities stayed on beyond their fifth year in 1981-82 compared with just over three out of every ten white pupils.

In 1979 21 per cent of boys from the ethnic minorities stayed on and 33 per cent of girls. But last year 40 per cent of the boys and 41 per cent of the girls stayed on.

Among those ethnic minority teenagers leaving school at 16 and looking for work, girls fared better than their male counterparts last year: 9 per

cent of the girls, compared with 5 per cent of the boys, found work. The year before 6 per cent of boys and 8 per cent of girls got jobs.

The picture of increased staying on rates plus rising unemployment is set against a background of families getting poorer. The number of children in Bradford paying for a school meal has dropped sharply and the number getting a free meal has risen from 19,539 in 1974 to over 20,000 last year.

The figures highlight the fact that Bradford has only slightly falling rates and that by 1988 the numbers in lower ability schools will begin to increase from 1984.

Baron Jeremy Rouse, headmaster of Carmel College, Wallingford, Oxfordshire, has been given the title of principal with wider responsibility in a reorganization of the college's administration.

Jon Siskin, the poet, has been appointed writer in residence for the Michaelmas term in an experimental venture by King's College, Tauton, Somerset.

Mr Stuart Mitchell, aged 37, principal teacher of classics at Andrie Academy, has been appointed assistant principal at Hamilton College, the new Christian independent

Cash sums for maths projects

The Mathematical Association is offering up to £100 support to acceptable school projects which contact employers to identify applications of maths which can be used in the classroom.

The association's schools and industry committee would also be willing to help a researcher who wishes to study schools/industry links in the field of mathematics but who needs a small fund to enable objectives to be achieved.

Applications for financial support should be sent with full details to: Mr J E Coaker, Chairman, Schools and Industry Committee, Mathematical Association, 107A Clidenden Road, Basingstoke, Hampshire, RG21 3EY.

school opening in the former Hamilton College of Education, Lanarkshire, in August.

Mrs Pat Hales, acting head of Children's House nursery school, Bow, London, since January, has been appointed headteacher of the school.

University appointments: Mr Derek E T Nicholson, senior assistant registrar with responsibility for the faculty of medicine at the University of Newcastle upon Tyne, has been appointed registrar from October 1.

Mr David McGahey, aged 31, an



School appointments: Mr Robert Baker, deputy head of Lea Major High School, Luton, is to become head teacher at Valence High School, Ilford, in September.

LETTERS

One 1944 Act for all faiths



Family octopus

Sir - The flexible family envisaged by Mary Warnock (TES, May 13), which can conveniently "with away" like the Fool in *King Lear* when its function is finished, takes no account of the bad times.

Nobody wants to be strangled by the dear octopus while the going is good, but what about the dark hours when no other source of comfort is left? A family presupposes a home and home is the place "where, when you go, they have to take you in."

The solution offered in Aldous

Huxley's last novel, *Island*, could cause problems in practice: each child belongs not only to his own family, but to a Mutual Adoption Club, whereby after a healthy dispute at home, he is entitled to present himself on some other doorstep, where he will be welcome until the temperature has cooled down at home. The only difficulty I envisage is how to divide six sausages by twenty people at five minutes' notice one Sunday morning.

ELAINE LEVER
Bridge Farm
Lillingstone Lovell
Nr Buckingham

Welsh debate

Sir - I have recently read (TES, May 6) the view of Mr D S Sword of St Richard Gwyn High School, Flint, on the problems of underachievement in public examinations by Welsh pupils and the specific references he has made to the examinations in modern languages which are currently offered by the Welsh Joint Education Committee.

I offer the following comments in order to correct various points of inaccuracy.

One of the most disturbing features of the letter is clear misunderstanding of the way in which the WJEC deals with syllabus development. Far from being the sole preserve of the examiners, the syllabuses are the responsibility of subject panels which consist of a majority of practising teachers. The examiners work within the structures laid down by the panel and have no personal responsibility for the framework of the syllabuses or the specific requirements of them.

Successful subject panels have maintained a consultation with representatives of the syllabus when they exist now reflect majority teacher opinions as expressed in those consultations.

The present subject panel is acutely aware of the need for syllabuses to be kept under review and it is for this reason that it established a sub-committee to review the 16-plus syllabus in German as soon as the discussions on criteria for modern languages at 16-plus had been completed. This sub-committee, which has recently completed its work, has taken full account of "recent developments" and could hardly have reacted more quickly to them. Its work will form the blueprint for developments in other languages.

Mr Sword states that he is "obliged"

to enter his candidates for WJEC examinations. The facts prove otherwise. While it is recognized that the question of examination entry is a matter for the discretion of the local education authority, it should be pointed out that his own department has, in the past, entered its candidates for the French examination of another board. The experience, however, appears to have been short-lived.

Mr Sword's opinion of our revised A level examination in French is very much at variance with that of the modern languages A level sub-committee of the Schools Council whose comments, during their very detailed consideration of the syllabus, described it as "one of the most progressive currently available".

In connexion with the criticism of our mode 3 procedures, I have to say that, although Mr Sword's school operates a Mode 3 scheme in European studies, we have never been asked by him to consider such a scheme in French. We have, however, recently received a request from him to share the CSE mode 3 scheme of another school and we have been pleased to agree to this.

It is a pity when the problems of teaching and examining modern languages are the subject of considerable debate in England and Wales and when the more general problems of underachievement by Welsh pupils have been the focus for intense discussion by all interested parties (eg the recent conference on disaffection), an attempt to place responsibility for apparent underachievement with any single agency may be convenient, but must also be seen as naive and simplistic.

BRIAN EVANS
Senior examinations officer
WJEC
245 Western Avenue
Cardiff

Late exam entry

Sir - Is Mark Featherstone-Witty (TES, May 13) talking about the same University of London Examination Board that I know and love?

Exam entries based on the results of January examinations, this year, be sent in after the closing date, March 7, on a late entry form at an additional cost.

JOHN PLAYER
Second master
Stowmarket High School
Suffolk

RSA policy

Sir - I refer to Mr Featherstone-Witty's letter about undue delay in publishing examination results until after the closing date of the next examination.

This happens with Royal Society of Arts examinations and presumably produces windfall profits.

This practice should be investigated by the Office of Fair Trading!

A SUDDECK
Woodman's Orchard
Talsdon
Exeter

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Sir - From reports in *The TES* during recent weeks one cannot help thinking that the approach to the Bradford Muslim schools issue, both by the education committee and the Secretary of State is very different to that taken to the Twyford, Ealing, request of some years ago. Muslims and others, like myself, might be forgiven for concluding that the difference lies in the fact that the Twyford proposal, which was accepted, was to establish a Church of England school - a whole-school venture!

Unless, in the current Bradford case, the Secretary of State is seen clearly to be acting in an even-handed, fair and just way, ethnic minorities will have a right to conclude that the 1944 Act does not apply to them.

The present situation in Bradford can probably be traced to the treatment given to the request of a Mr Patel that his daughter be allowed to go to a single-sex school. His choice, legitimate under the 1944 Act, was denied on the grounds that there were no places available. Mr Patel was not alone in feeling that this was an act of discrimination and that the real reason was a fear that the school could attract too many Muslim girls, being the only single-sex school in the city.

I understand that there are plans in the Bradford area of Kirkcaldy, and in other areas where there are large Muslim populations, eventually to reorganize schools on coeducational lines. Before these changes take place I hope authorities and the Secretary of State will look hard and long at the Bradford situation and learn from its history of mistakes. What is happening there now could have been

avoided 10 years ago.

Whether denominational schools are a good thing or not is one matter. The point now is whether the law of the land is to be applied to all British citizens or to some. One cannot condone the actions of parents who force papers or keep their children from school as the sensational report by Bert Lodge alleged (TES, May 6), but those who support law and order and parental choice in education must ensure that justice is seen to be done so that frustrated people will not need to flout it.

W OWEN COLE
Former vice-chairman,
Yorkshire Committee for Community Relations
Senior lecturer
West Sussex Institute of Higher Education

Wrong move

Sir - David Coulby is doubtless right in insisting that the goal of secularization in education is distant (TES, May 13). But to dismiss all those who resist further attempts by extremists to undermine the genuine progress, however tentative, towards multicultural education in Bradford as "covert racists" is highly offensive.

Does he realize that he would include in his blanket condemnation the local Asian Youth Movement? They emphasize the desirability of the secular ideal, but oppose Muslim sectarian moves as potentially disastrous: such schools, they say, would be tantamount to "voluntary apartheid". Their effect would be to

"promote racist myths", stereotypes and prevent any interaction between black children and white children".

We in Bradford benefit from a relatively harmonious multicultural community. There are many of us from all racial groups who believe these moves on the part of the sectarians will prejudice the future to proceed any further. It is going to be castigated from the heights of the London Institute of Education as racist because, we, secularism is presently unrespected, seek to nurture and preserve the positive aspects of our current situation.

It is an added irony that the same parents whose interests he purports to defend by quoting advertisements for the Church of England headmaster, predominantly Muslim schools, would probably find less to object to in a head than in one without religious commitment. It is the godlessness of our educational system, as they see it, which alienates them, not the absence of an adequate code, which alienates them, not the oppression from Christian norms.

Slurs like Mr Coulby's may be but those of us who are anxious about the implications of new sectarian interpretations of the 1944 Act and share Clive Lawton's optimism of British society (TES, May 6) rather, there is little liberty gained and a great deal of good understanding to be jeopardized.

LYNN SMITH
Chapel Row
Wilsden
West Yorks

Rights of deaf

Sir - I really must respond to the inaccuracies and philosophical cul-de-sac of your recent article on integration and deaf education.

I am from the traditional method of education being taught in deaf residential settings, it has actually been "banned" from the classroom for more than 100 years! Deaf adults have been effectively barred from becoming teachers of deaf children; social workers and parents who are deaf have themselves been kept away from helping families with deaf children. This has been achieved by the minority of hearing people who control deaf education.

What are the results after that time? Mass illiteracy (the reading age of the average deaf school leaver is eight years), massive emotional frustration, mental breakdowns and suicides by parents, children and adults, and the crippling of a community that once supported itself with some pride.

This is clearly a human rights issue, and research shows that all the United Nations' Rights of the Child are being broken in this process.

2. The so-called integration of Leicester, reported in your article, is not an attempt to improve educational standards. It is an attempt to separate deaf people from each other, once and for all; it is the logical extension of "oralism". In this context to call children "relaxed" and natural is a bitter farce - the last thing you can do when relying only on lipreading is relax!

From 31 years of what some might call very successful deaf existence, I have no hesitation in saying that as long as one tries to pretend that deaf people are hearing and should be treated that way, one will never realize one's potential in the world.

3. Black children can now be taught and brought up in a multi-cultural society. We are asking simply that this be applied to deaf education. Let hearing children and adults learn our language. From the basis of pride and equal sharing, genuine integration can come about, together, with psychological health and literacy.

Your article implies that this view is extreme. In fact it is a part of the give and take of normal life. When will you cover the consumer's view of deaf education and allow that to be understood?

PADDY LADD
BBC Television
Wood Lane
London W12

Old standards

Sir - May I reply to the criticisms (TES, May 13) of my "out-of-date entrance examination papers" set to intended pupils for the new school to open in the former Hamilton College of Education?

The poor marks gained by the Lanarkshire children in English and arithmetic are the result of lack of teaching in these basic skills, evidenced not so much by my test results as by the fact that their parents want to transfer them from primary schools to a fee-paying school mainly for this reason.

The complaint that the papers were "absurdly difficult" is true only if the children have not been taught what is being tested.

Dr Malcolm Green's remark that "the tests are... out of harmony with educational developments since 1945" is largely true. Before 1945, British, especially Scottish, education was the envy of the world. Since then, many educational developments have been misguided and some harmful, for example the idea that if you do not correct spelling mistakes and grammatical errors, you assist a child's creativity, and the notion that you no longer need to teach children to add, subtract, multiply and divide because they all have pocket calculators nowadays.

In-service jargon

Sir - I noted, with some amusement, an advertisement for a job in a school with which I have recently been connected. It asked for an applicant committed to resource-based learning and team teaching. Not an extreme request, you might think.

But the eventual appointee might be surprised to find on the first day of term that "resource-based learning" merely meant that the department produced its own booklets, a replacement for expensive textbooks, and "team teaching" meant that we were not at each other's throats. Each teacher remains firmly in their own classroom.

It is a sad reflection on the quality and quantity of in-service education that otherwise excellent senior members of staff are unaware of the true meaning of these terms.

NIGEL J WEST
34 Ashfield Drive
Burton on Trent
Staffs

Odd number

Sir - As a relatively new member of the teaching profession, I have been impressed with many aspects of the City and Guilds courses offered to non-academic students.

However, the methods of assessment leave much to be desired. On one course there is an examination which tests only factual knowledge. This is ridiculous for a social studies paper.

On another course I have to wonder how express my assessment of the students' progress in the form of a number!

Surely, it would be better if student profiles could be written in the teachers' own words. There are many teachers, on City and Guilds courses that personal bias to progress would be evened out.

JOHN F MASON
31 Sike Jags
Iver
Bucks

LETTERS

Salisbury: the forgotten issue

Sir - My article, "Proving worth in selective schools" (TES, April 29) has drawn a fusillade of personal attacks (TES, May 6). While welcoming my opponents' resort to *ad hominem* argument - it shows the poverty of their real arguments - I must defend myself against some of the charges.

Mr Sawyer's accusation that I have visited none of the schools and that I know nothing of the local situation is completely unfair. Of the six schools involved I have visited four - two professionally as an education tutor. I have also done a heavy stint on the doorsteps of Salisbury, seeking the views of the public.

It is a complete travesty to suggest (Mr Smith) that I believe that academic performances are all that matter in education, or that failure is connected with the number of O level subjects studied. Academic performance is the only thing in school brochures that lends itself to scientific examination, and in any event I seem to remember that comprehensivists used to make much of this. As for "failure", I spend much of my professional time combating the prevalent egalitarian view that secondary modern pupils are to be regarded as failures just because they are provided with more relevant and realistic courses.

The reactions of my critics are intriguing. Mr Hood says the comprehensive school is at least equal to the selective sector in achievement; Mr

Sawyer gives reasons why it falls short; and Mr Smith says that it is not trying to achieve academic equality anyway.

There is room for debate about the extent to which the superiority of the selective sector is due to differences in intake. I have ascertained that less than 10 per cent of the grammar school intake came from outside their catchment area, which is half Mr Hood's figure.

This should not, however, allow attention to be distracted from one of the main findings - the success of these schools either did better than or came very close to the comprehensive.

Nothing can disguise this fact. Mr Hood tries hard, but in attempting to set up a superiority for his school in "failure rate" he conveniently ignores all CSE grades below grade 1. CSE grade 2, for example, is no more and no less a failure than an O level grade D.

I sympathize with Mr Hood in his dilemma. To show that his school's performance is equal to selective school standards he has to demonstrate that he had no more than 30 grammar type pupils in his fifth form. The more successful he is in this the more difficult it is for him to justify a claim to a viable sixth form.

"Waste due to selection" is Mr Reilly's main theme. The 11-plus exam, while not entirely accurate, has been described as the most accurate

examination ever devised - certainly more accurate than A level. The effects of inaccuracy are ameliorated by overlap GCE courses in the secondary modern schools. The mistake Mr Reilly makes is to compare a selective system to Utopia, whereas he should properly compare it to the comprehensive system, which has its own disadvantages - large size, lack of structure etc. It also has a process of selection which is probably more inaccurate than the 11-plus. The proof of the pudding is in the eating, Mr Reilly.

It is Mr Smith who lets the cat out of the bag. The aims of comprehensive schooling are different from those of the selective system, he says. Just so. It is precisely for this reason that in a pluralistic society we should not best to provide alternative systems to accommodate the differing views parents may hold about education.

None of my critics mentions the rights of parents, which was a main feature of my article. In their passion for universal comprehensivization and their moral indignation over a meritocratic society they either consciously or unconsciously further the collectivistic state.

This is the real issue in Salisbury, as the defenders of the selective system have at last realized.

FRED NAYLOR
2 Kingsdown House
Box, Wilts

Design and fall

Sir - Rick Rogers's otherwise excellent review of design education ("The Design and Fall of Britain", TES, April 29) has, in my view, one major failing: it gives prominence to the Prime Minister's misleading statement that "design is too often taught in schools as an art subject."

It cannot be denied that a majority of art teachers in schools, and even on foundation courses, have received a predominantly "fine art" training but, nevertheless, they have supplied the colleges of art and design with students who have become excellent designers. It is a reflection of the quality of the education that these designers receive that they are so often snapped up by foreign competitors rather than used within British industry.

The art and design system trains designers for the textile, glass, ceramics, furniture, theatre, film, television, printing and many other industries which are vital to the nation's economy.

The regeneration of industry depends, according to the Government, to a substantial degree upon the quality of its designers. It is not curious that this same Government, through the NAB, is seeking to reduce the number of art and design students in training at a time when the Department of Industry is increasing the demand for designers?

Design in the school curriculum must not be allowed to be equated with "CDT alone". Rather design awareness - design across the curriculum - should be fostered. The National Society for Art Education is concerned that there is a danger that a narrow skill based concept of design will replace the vital broad approach to art and design in education.

JOHN STEERS
General Secretary
The National Society
for Art Education
Corham
Wiltshire



Horror stories

Sir - As editor of *John Craven's Newsround* (above) I feel I must respond to the concern voiced over television news programmes by the National Association of Head Teachers.

Contrary to the impression given in its new booklet, *Language and the Primary School*, Newsround does not show, almost daily, scenes of horror, misery, despair, and man's inhumanity to man, in graphic detail.

In fact, this programme has very strict guidelines about not including such scenes of explicit violence. Each day we report on a variety of stories, some on international and national issues, and others of more specific interest to children, and we aim to strike a balance between the two.

Our brief is to tell the news in a way that is comprehensible and stimulating to young children. It really is not our intention to scare them stiff. Fear and anxiety are often generated by ignorance. It is only through knowledge and understanding that children can come to terms with what is happening in the world.

ERIC ROWAN
BBC-TV
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SOS appeals

Sir - I am surprised that neither Dr Terrell (TES, "Talkback", May 6) nor any of those whom he consulted thought of advising the mother to write to the Secretary of State which, unless things have changed since my time, would have automatically resulted in an inquiry by HMI.

I remember a letter sent to the minister as he then was, from a very humble address in a poor area where which I was responsible, making a

complaint which led to my visiting the parents, seeing the child and interviewing the head teacher and teacher of the class concerned.

I thought the complaint justified and told the teachers what I thought and was able to return and reassure the parents. The complaint was not repeated.

JOHN BLACKIE
The Bell House
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TALKBACK

Design and fall

RICHARD HICKMAN

Ever since American politicians blamed the US failure to beat the Russian's Sputnik on the lack of creativity in their education system, it has become a cliché that governments, industrialists and other Philistine clans see design as a means towards a specific utilitarian end.

Rick Rogers' comments ("The design and fall of Britain" TES, April 29) that "the Prime Minister and the Government seem to have a narrow view of design" is something of an understatement. What does Margaret Thatcher mean when she says: "Syllabuses are arranged to give greater merit to 'pure art' than to the practical application of design"?

Any attempt to take out or not include the intuitive and expressive elements from design syllabuses should be firmly resisted, otherwise design teachers would be left with

Against the stream

SHIRLEY WIMHURST

It seems that many people believe that the sorting and labelling processes of the 11-plus examination have been eliminated from our educational system - but not so.

The 11-plus examination still exists in a few areas and even where all pupils are allocated to comprehensive schools, in over 30 per cent of these schools according to a recent survey carried out by the National Foundation for Educational Research.

Pig in the middle

STEPHEN WILKINSON

A bridge across the rapids of early adolescence was one description of the middle school concept. The Flowden Ideal, to intertwine the best of primary practice with secondary style, specialist subject teaching has failed to materialize.

Initial expectations were high, despite the variety of interpretations

banal product-orientated sets of exercises differing little from secondary school craft lessons, but labelled CDT.

The expressive arts - music, fine art, poetry and drama - have a valuable part to play in our schools, not only as subjects in their own right but also as an underlying feature right across the curriculum. Never mind combining art with metalwork: what about music with physics and poetry with maths? The creative approach to subject areas has never been the sole prerogative of the arts but the Gradgrind approach still reigns supreme in some schools outside of art and design departments, and in too many cases within them also.

"Problem solving" is the design cliché used as the string to tie together superficially dissimilar areas. The usual outcome unfortunately is a decidedly convergent set of principles which start with identifying a problem and then, through a series of logical and well-defined steps, solve it. However, not all creative processes work in a logical or well-defined set of actions. In fact it seems a feature of creativity that it is illogical and nebulous. Expressive and intuitive elements should form a significant part of

Admittedly the pupils are all under one roof, but immediately on entry, or within a week or two, they are sorted and labelled. There are many who see this as the only way to organize children for teaching purposes; but look at it from the child's eye view. What is the difference in failing the 11-plus examination and in being placed in the bottom stream or band of a school?

In small schools where pupils are sorted in this way they are placed in streams. In larger schools, they are placed in bands - which is merely a euphemism for streaming. In schools with this type of organization there will always be a bottom stream or band. The children in these bottom streams or bands have been labelled failures at the age of eleven in spite of getting rid of the 11-plus examination.

Some schools, efforts are made to ensure that the curriculum content for

I.e.s.s. set on the "middle years", and the outlook was optimistic, a promising new venture precipitated by circular 1065. What happened to bring about the current decline in middle schools and the indecent scramble back to the primary/secondary divide?

It is possible to trace several crises in the development of middle schools which together suggest some of the reasons why the concept soured.

Crisis one came soon after inception. The drafting of ex-secondary and ex-primary teachers into a new middle school staff required considerable tact from headteachers who themselves were either ex-primary or secondary, with limited experience in dealing with the kind of status confrontations which developed. Personalities found

a design syllabus, not just by inserting the words "imaginative" or "originality" whenever appropriate, but as basic prerequisite in teaching and learning.

My first flirtation with an integrated design department was in 1975 as a student teacher. I was attempting to reconstruct the Battle of Bosworth with several other teachers, the entire third year, and battle scene sound effects, as a prelude to a group frieze on the subject when I heard nearby the strains of "Land of Hope and Glory" played on several unidentified wind instruments... music, I discovered, was "in with the design department"... Since then I have witnessed many a home economics teacher trying very hard to integrate with metalwork, and ceramics lissajousing heroically with mathematics.

Even in a cooperative and co-operating design faculty, unless the basic concepts of design education are fully understood the faculty will find itself all at sea. These basic concepts revolve around the act of creating. While acknowledging the desirability of producing "useful" objects with some students, the process, I feel, should be more important than the product.

On the other hand, it is of little

to school, or within one school, from those who are barely literate to those who just happened to be one or two points behind their peers in any arbitrary test that might have been used for sorting purposes. Or even worse, they might have been placed there because of an unfavourable report from a primary teacher.

Whatever the reasons for being placed in the bottom stream or band, any pupil's chances of being moved out are very slim. They are allocated in batches of approximately 30 to each stream, or 90 or so to each band depending on the size of the intake. Having been placed in rank order those at the bottom of the list are placed in the lowest stream or band. Pupils cannot be moved up unless others are moved down.

In some schools, efforts are made to ensure that the curriculum content for

ed on one view of the self were soon in need of review, unfortunately for the individual but disaster for a new school requiring positive direction from the outset. Souls in torment have no place in a developing school struggling towards recognition.

This early difficulty induced crisis two. The identity problems of staff very soon found their way into various curriculum plans, resulting in contradictory or inappropriate schemes of work. Soon middle schools were being dubbed "muddle" schools.

The identity crisis was inbuilt; who carried the authority, subject heads or year leaders, secondary specialists or primary pastoral persons? Conflict, but so very resolved as explosive disciplinary situations. Leaving the now older than primary children, demanded a positive pastoral chain of command and subject teaching was seen to be less significant than a pastoral role.

Crisis three concerned staffing problems created by that decision. Specialists with hopes for promotion opted out of the Scale 2 ceiling middle schools, preferring the longer promotion ladder of the high school. In some subject areas this did not matter, except in the sense that the cream moved to the top rather than opting for the middle but in shortage specialist areas, like maths, chemistry, craft, and science, gaps in staff skills began to appear. Access to even one specialist in these areas was often a vain hope. Problems thus created were telegraphed when a system designed to

operate on the basis of a "one teacher/pupil ratio" of the late '60s and early '70s was subjected to the squeeze of the late '70s and early '80s.

Out came, to frustration, the "make do" syndrome and the multi-role middle school teacher. Job descriptions began to appear, asking for year leaders with a subject specialist, ability to assist at music and PE, remedial teaching experience, an interest in managing school outings, a "one-stop" operative, just does everything and soon the final straw came. A teacher spread like a sheet of paper, over-large, like a broad, decision on priorities and leaves gaps. Standards began to suffer be-

value imposing a system of ideas and principles upon a group of teachers who are unwilling to understand or work them. It is perhaps better to teach using "traditional" methods well than to teach using "progressive" methods badly. It is pointless having open plan multidisciplinary areas of each teacher builds a little den where in he teaches "his" subject.

Teachers' personalities are often the limiting factors in the school curriculum; the timetable and accommodation can be altered more easily than 25 years of entrenched attitudes. Being a firm believer in the "Leonardo principle", I believe that over-specialization is undesirable below retiring age. Cross-curricular fertilization enriches all subject areas but it is difficult to achieve while there exist faculty and departmental systems in schools where any fluidity is enclosed in boxes.

Our young charges are neither "scientists" nor "artists", they are potentially creative individuals who need an environment where they can flower according to their abilities.

Richard Hickman teaches art, design and general studies at Melton Upper School, Leicestershire.

age so that there is some possibility of transfer to another class. In others, the pupils in the lowest stream have a restricted curriculum, the content of which is entirely different from the other pupils'. Once embarked on this, the gap widens between those in the bottom stream and their peers.

In this type of organization there is no chance of transfer to another group or class. Understandably, those in the bottom streams or bands respond to the label which has been placed upon them. They believe themselves to be failures. An equal opportunity for all children to develop their talents cannot be achieved by merely abolishing the 11-plus. Children need encouragement and they need success. Don't brand them as failures. Give them the chance to show what they can do.

Shirley Winhurst is a former teacher and now does research in primary schools.



cause teachers, under pressure, doing their best, fail to meet satisfactorily the multitude of demands upon them; pastoral care, subject teaching, mixed-ability teaching, in-service training, revision, record-keeping, testing and assessment. With standards coming into question the end of the middle school was in sight.

Vulnerable, particularly to politicians keen to save money by deeming middle schools primary, enabling reductions in staffing, capitation and centralization of resources on huge 11 or 12 to 18 campuses, middle schools in some areas have been abandoned. Time is short for the others unless the real promise, vitality and learning to have come from the years of torment and confusion. Middle schools could still work and achieve all the hopes of the original planners well-founded. HM Inspectors are due to publish a much-awaited middle school report shortly. I wonder if it will say that?

Stephen Wilkinson teaches at Nadehill Middle School, Newport, IOW.

Sight and sound

MICHAEL SMITH



Bill Deller's pupil must surely have been unique in thinking that he was an SA, that he was required to write and in wondering what the imagined initials stood for. (Extra, TES, April 29). I can easily recall exactly the same problem myself, although, with all due modesty (but also with an honour degree), do not really think that I was the less able boys' like Mr Deller's unfortunate lad.

When children are in the process of becoming literate, they invent spellings for words which they hear until such time as they see those words in print. What is quite small we used to sing in a song concerning God's love that it was "more than Tangkante". I was young that the probable spelling of what was apparently one word in that was how it was invariably said, was rather misty in my mind, but was at about the same time I came across "Tutankhamun" in an encyclopaedia. I assumed the "Tungkante" was somehow connected with him.

On another occasion, I distinctly recall my great surprise on seeing legend in the clothes department of West London store declaring "pants" over what I had then assumed were "pance".

What has the teacher to learn from all this? First of all, perhaps, not to be unduly concerned about it. For one of us, young and older, the fluency of our spoken language outstrips our written language. It is always some steps ahead. Until children attain a certain level of literacy experience, they will write what they think they hear.

Our second task, therefore, is to patiently to correct them, one step at a time. This corrective process will go hand in hand with our own efforts to introduce our pupils increasingly to the written word.

The boy who wrote SA at the top of his work might have been helped by Deller had said "composition" at least once when he was setting the work in question. Teachers are accustomed to saying everything two or three times for the sake of those few who do listen on the first occasion, we ought to vary the vocabulary the second time, and again the third time.

The more experienced we are as teachers, the greater will be our appreciation of how our pupils have reacted to what we say. We shall react to what we say. We shall organize our own vocabulary accordingly, and it will vary according to age and ability of those whom we address. Certainly as a comprehensive school teacher I am well aware of the importance of using a range of certain words and phrases capable of double entendre.

(stemming from clarity of thought) of the essence. When I was a pupil in the top year of the junior school, our teacher related the story of Ulysses. We were duly introduced to the spelling of his name. No problem at all. But as the tale unfolded, our teacher foolishly referred to his "Odysseus", which the equally foolish pupils, who were equally foolish, failed to write on the board. The well-remembered, puzzled "O" seemed to be very bold and prominent and yet the kept coming back to me, I had never seen it before, but by a miracle, I remembered it. Some sort of "O" was the teacher's "O" to the pupils when she read my assignment.

Michael F. Smith teaches in a comprehensive school in Hampshire.

FEATURES

Just another crack in the wall

Mick Farley describes the gaps in the Youth Training Scheme that further education expects to be made good

Further education has a long and proud history of responding to change. But there is so much uncertainty and concern about the Government's proposals for youth training that they are creating considerable anxiety, fear and even anger in the further education service.

The FE contribution to the Youth Training Scheme has never been specifically defined. The Manpower Services Commission prefers to leave it to be determined locally. So there are substantial variations and the particular role of the service is impossible to predict.

However, the White Paper, *A New Training Initiative: A Programme for Action*, envisaged a very substantial increase in further education for MSC-related work. The estimate is 73,500 full-time equivalent FE places for YTS, compared with around 10,500 taken up in 1981/82 for the YOP. But, as many as half of these places would, before the YTS, already have been in the system; young people on day or block release and on integrated training board courses. So the potential increase is only about 31,500 full-time equivalent places within further education.

Another key assumption in this estimate - and one which underpins the agreement between the CBI and the local authority associations on fees chargeable for the off-the-job element in the employer based, Mode A schemes - is that the further education service will provide the off-

'a very major threat to the FE service'

the-job component for 70 per cent of Mode A entrants. But the managing agents of the schemes will determine where the compulsory off-the-job education and training is to be done and there is, therefore, considerable uncertainty in some areas about the place of further education in the YTS.

The demand by Mode A schemes for off-the-job work in colleges remains unclear. Already time is very limited if the necessary planning and negotiating are to be undertaken - the more so with some schemes coming on-stream throughout the summer period.

There is, in addition, a worry within further education that the target for Mode A places will not be met and that colleges might be asked, at impossibly short notice, to meet any shortfall. In such circumstances, however great their will, the ability of colleges to do so would be severely limited. The position on April 22 was that the MSC had identified 390,000 potential places (84 per cent of the target). Of these 50,000 (11 per cent) had been approved and 23,000 (5 per cent) were available.

Two further factors giving rise to anxiety within the education service are the possible attraction of young people away from full-time education as a consequence of the YTS allowance, and the threat of the privatization not only of the off-the-job component of YTS but also of Mode B provision.

The proliferation of private training firms - some especially created to mount YTS schemes for profit - poses a very major threat indeed to the FE service. It is one the service finds hard to challenge, and one which will require great determination and cooperation with YTS area manpower boards, particularly trade union members, if it is to be met. This issue is, of course, not unconnected with the education service's continuing grievance over its serious under-representation on these boards - a grievance exacerbated by the different ways individual boards approve youth training schemes and by their varying levels of expertise.

If the objectives of quality and of relevance are to be met in the YTS, the active involvement of further education is essential. The service offers high quality training and education facilities, tested programmes, experience, professionalism and support as well as flexibility. These are important components - well marked by some I.e.s.s. and individual colleges - which no newly established private commercial organization can offer. In the final analysis, the education service will act as a guarantee both to the managing agent and the young person that the YTS offers the kind of learning opportunities intended and needed.



tial deterrent to effective and adequate staff development. But without it the work-based learning as well as the off-the-job education envisaged by the YTS, will be at risk. It requires a substantial shift in attitudes and teachers skills, with teachers increasingly becoming managers of learning rather than instructors.

There are also a number of other outstanding matters that need resolving: the continuing practice of many I.e.s.s. of appointing staff engaged for YTS work on temporary contracts; the introduction of courses available for 48 weeks a year; the use of part-time staff to cover such extended college years; the low recognition for staff engaged on the YTS in salary gradings; and the time allowed for the work entailed in development work in profiling.

Current management structures, at both local authority and institutional level, are also proving inadequate in many instances.

There are still a number of unanswered questions, too, relating to groups with special needs and there is a very real danger of sex and race discrimination in the YTS unless the MSC is more vigorous in their elimination than at present. With employers free to "recruit" trainees directly, the discrimination in the labour market seems likely to creep into the YTS. Employers will select out the higher achievers for Mode A provision, leaving Mode B to cater for the rest (with a further "stratifica-

'a real danger of sex and race discrimination'

tion" between community and workshop-based Mode B1 and the college-based Mode B2. The danger is that those young people disadvantaged at 16 will have further disadvantage heaped upon them by the YTS.

Although the further education service has never been able to guarantee the future of its students, there is a great deal of concern about what will happen to YTS graduates who remain unemployed. They represent a challenge to further education, to devise relevant post-YTS courses and to ensure that existing courses give credit for YTS experience.

There is little cause for optimism either in the medium term outlook. There is already some evidence that the MSC would like to shift the emphasis in the YTS still further away from the needs of young people. An internal planning paper suggests the YTS should relate even more to the economic needs of industry and commerce in 1984/85 with more emphasis on Mode A.

This shift would be principally at the expense of the Mode B2 largely college-based schemes, with some reductions also contemplated in Mode B1. The MSC regards a programme which commands the acceptance of employers as crucial and is contemplating concentrating "on those industries that appear to hold out the greatest prospect of secure longer term employment" and "on private sector sponsors at the expense of, for example, local government".

The chances of resolving the eligibility issues seem slight. Next year about 194,400 is to be provided for the YTS and about half of this will be accounted for by expenditure on this year's entrants staying on into 1984/85. The continuation of the present eligibility rules alone would add a further £400m to the cost next year, leaving very little indeed - nothing at all if slippage away from current planning occurs - for improvements to the eligibility rules. Any option has cost implications, and the MSC appears to be taking the view that no option could be met within existing cash limits without a radical shift in the balance of provision towards Mode A.

The YTS must be an evolutionary programme. It is meant to become a permanent scheme of vocational preparation for 16 and 17-year-olds who have left full-time education. But unless it is adequately resourced, the development of its potential looks set to be thwarted for a good few years yet.

Mick Farley is assistant secretary (FE) of the National Association of Teachers in Further and Higher Education and a member of the MSC advisory group on the content and standards of the YTS.

FEATURES

Instrumental enrichment, or IE, is a system for teaching children how to think in which several Governments, including the British, have shown interest. Here, Howard Sharron visits Israel to talk to Reuven Feuerstein (pictured), the man behind IE, and Keith Waller (below left) describes the spread of his ideas.



Exhortations like "Think before you speak, Steve!" or "Susan, use your head!" are common enough in the classroom. But they may be futile if we don't specifically teach children how to do such things.

How do pupils learn to think: to handle ideas, make decisions and solve problems? Can teachers identify and promote the necessary skills or must they hope pupils pick up the tools for thinking through encounters with the usual school subjects?

The fact is that many children do not learn to

think and principles there are many who have trouble in putting their knowledge to work. Pupils often find it difficult to plan investigations, to observe accurately and to organize information; activities necessary for progress in many areas of the curriculum.

For children who fail to learn there is a temptation to lower sights and to devise a curriculum which seems less demanding. We are inclined to project ceilings of attainment from pupils' past performances and then derive reassurance from the self-fulfilment of our prophecies. In consequence, some pupils progress even more slowly and become passive, demoralized and alienated.

Since 1981, teachers in 17 schools and colleges in inner London, Coventry, Manchester, Sheffield and Somerset have been questioning their expectations of pupils and taking a fresh look at the way children learn. They have faced the possibility that existing curricula do not tackle pupils' learning difficulties directly enough and have introduced courses in "thinking".

The work forms part of a joint Schools Council/Organization of Economic Cooperation and Development study of Reuven Feuerstein's instrumental enrichment. After more than 20 years of research and experience with handicapped and slow-learning young people in Israel, Feuerstein's materials have recently been translated and used in several other countries including Canada, the United States and Venezuela. They focus on how children learn and how they solve problems, rather than on their existing stock of knowledge.

Instrumental enrichment (IE) aims to promote the attitudes and skills pupils need to engage in systematic and complex thinking. The work revolves around 15 sets of pencil and paper tasks, the "instruments", each of which is designed to foster specific mental skills. The full course supplements the normal subject-based curriculum to the extent of about three hours a week over two years. To use it, teachers need a total of about 10 days in-service training.

The IE programme is unusual in deriving directly from a psychological view of learning; Reuven Feuerstein's theory of the mediated learning experience. He suggests each generation passes a distinctive set of rules and ways of solving problems on to the next. Adults focus children's attention, supply vocabulary and demonstrate how to select and manage information. Young people are encouraged to note

differences and relationships, draw out implications, generalize and relate new stimuli to past experiences. As a result, children learn to order, understand and manipulate their surroundings.

Yet some children fail to make progress and are classed as slow-learning, remedial or educationally subnormal. They may lack verbal tools, respond impulsively and imprecisely, be unable to handle abstractions and fail to draw on past experience when faced with problems. Unable to think systematically, such children naturally struggle with their normal school curriculum.

Feuerstein's work is usually to be most fruitful if directed at young children. Many would now challenge that view and argue that suitably planned intervention is always worthwhile - even with retarded adults. However, the intervention must promote specific skills for thinking, rather than ephemeral facts.

The instrumental enrichment course is consistent with these ideas. It provides an organized basis for intervention and offers pupils tasks, unassociated with past failures, which place emphasis on the way problems are solved. The work is not linked to any particular subject nor aimed at specific groups of learners. The teaching approaches and printed materials encourage discussion as pupils establish and work towards specific goals.

Reuven Feuerstein and his colleagues have described many examples of dramatic progress made by IE students. The work is fairly new elsewhere but evidence building up in Canada and the US suggests that pupils value the work and make lasting gains. North American teachers commonly say that instrumental enrichment has changed their teaching style. They claim to make more use of open-ended questioning and less of pre-digested expositions to pupils. They are also ready to give pupils time to think.

During the first year of study pupils are thought to become motivated, acquire new and powerful vocabulary and begin to reflect on ways of handling ideas. Performances during the second year suggest that pupils become better equipped to make decisions and solve problems. British teachers have also reacted favourably to the programme. They have used the materials successfully with pupils in special schools, comprehensive schools and an FE college and many report having raised substantially their expectations of pupils.

In sum, the evidence of IE suggests we could and should be more systematic about teaching pupils to think. This requires in turn that we become more explicit about educational goals and more precise about the range of thinking skills pupils require. Above all, we need to question traditional attitudes and recognize the relevance and possibility of intellectual growth for the vast majority of individuals throughout their school careers and into adulthood.

Keith Waller is a principal educational adviser at the Schools Council, 160 Great Portland Street, London W1N 6LL.

JUST A MINUTE

effect. In short, they were the passive victims of a disordered reality, rather than creative and effective users of information.

For these children, the mass of different stimuli they received from the world was organized into any stream of experience which could be summoned to assess new situations, solve new problems. Instead they reacted passively, irrationally or passively.

Many of these children were from underprivileged families and had been brought up in extreme poverty but Feuerstein believed this was part of the explanation for their retardation. In some reason their parents had been unable to step into their experience and give order and meaning to it and to help develop their cognitive skills. It was this missing step that is behind the theory of the mediated learning experience.

Feuerstein now stresses the importance of parents' contribution to the child's basic cognitive equipment, the infrastructure of intelligence. Yet this mediating role is absent in behaviourist or Piagetian theories of learning and in theories and notions about learning intelligence.

"The simple interaction with the world," Piaget, for example, says is the process where children learn, cannot explain the development of the higher mental processes like logic or differential education attainments of children, Reuven Feuerstein claims.

"It is the transcendental characteristic of the mediated learning experience - of providing more information and knowledge than is needed by the child - that is responsible for success in the child the anticipation of events and the search for horizons that go beyond the immediate."

"Children who don't undergo this constant expansion of their systems tend to have inflexible personalities, they are unable to adapt to new situations." It may be that a child's cognitive, psychological or emotional condition discourages a parent, rather than intensifies or her meditational role.

But it may also have external causes. It may be economic factors that leave parents little time for their children, or technological changes society that leave adults, with obsolescent skills ill-equipped and lacking the confidence to prepare their children for adult life. The migration of a minority group to a strange new society, the breakdown of the extended family, the new attitudes of women to the home or the simple fact that the child is the last-born of a large family can all contribute, says Feuerstein, to an inadequate mediated learning experience.

The important thing to Feuerstein, of course, is that this inadequacy can be overcome. Cognitive skills can be taught, cultural experience enriched. And one limited success, Feuerstein believes, can alter the structure of a child's personality so as to make him more responsive to learning in completely unrelated areas.

It has little in common, as an educational philosophy, with those who tailor the curriculum down to the level of a child's manifest abilities, as shown by psychometric tests. The intelligence formulated in these IQ tests is nothing but an artificial construct, "exclaims Feuerstein. It has been created by psychologists' need to make psychology an exact measurable science which could predict performance. But humans are unpredictable and they can change. It is a terrible thing that psychologists and teachers have condemned the futures of so many children with these tests."

One of the most important things about the theory of instrumental enrichment, says Feuerstein, is that it is taught to Israeli pre-schoolers alongside the techniques, is that it improves the ability of teachers to assess a child's intelligence. It militates against writing children off on the basis of their present performance. It encourages teachers to involve parents in the education of their children in a way which would be revolutionary in the British education system.

But the results are surprising enough. Feuerstein claims, to be able to change old prejudices. "Teachers all of a sudden see children who were abstract tasks they themselves have difficulty with. It is a shock to teachers to realize that a deprived backward child can do them. Really, a very great shock."

"And what is marvellous about the human race," he adds, "is that there is no child who is not a person. It is only a matter of time before, upon a person's ability to extend his intellectual powers. Rabbi Akiva, one of the most famous Jewish wise men, could not read until he was 40 years old."

FEATURES

... LET ME THINK

The most effective way to find out how Feuerstein's theory of instrumental enrichment can help children learn to think is to watch the system at work in the classroom or, better still, to try it out yourself. Half an hour of "mediated learning" with the IE kit, its crude set of pictures, and the essential message: "Just a minute... Let me think", can carry you through the jargon about variable learning potential and cognitive function to join the disciples.

I joined them in Washington last year, after an encounter at an international conference with Frances Link, Feuerstein's prophet, and, as vice-president of Curriculum Development Associates Inc, in charge of professional training and dissemination of the Instrumental Enrichment package.

Frances Link is a woman of striking appearance and persuasive personality with a well-deserved reputation as a superb teacher. Along with the small group of educationists and administrators she had gathered up at the same conference I addressed myself to the first set of pictures (or "instruments").

What did the first drawing (figure 1) show? Arrows pointing north, south, east and west. I suggested over-hastily. Salutory lesson number one. Clear your mind of useless clutter. Don't leap to conclusions by assuming something there is no evidence for. Start with what you can actually see, the evidence that you have, and build up from there.

The instruments are content free, and can therefore be used as tools for learning to learn, wherever you start from. Originally designed for educationally-retarded children, the light they shed on how children think and solve problems could help towards integrating them in the normal classroom but can also provide stimulation for more gifted children.

The practice they offer in solving problems can be exciting whatever level you start from. Once a class has started to work through the instruments, they can get so caught up in the progression that they are eager to work on for an hour and still want more.

And the lessons in logical thinking can be directly transferred to the regular subjects of the curriculum, the concept and principles to careers and life experience.

Instrumental enrichment has been used in schools in various parts of the United States for four years, and is now being tried in this country - I visited two inner city schools using it, with very different groups of children: one in New York, the other in London.

Junior High School 126 is a grey fortress in the urban desolation of Brooklyn with a mixed intake of white, black and Hispanic pupils. But it is a magnet school which creams the whole of New York's District 14 and has an energetic and forceful principal in the person of Dr Sheldon Toback. The school takes 1,500 children from four elementary schools in the normal course of events, but is now designated as a centre for the gifted and talented.

They have 17 gifted classes, though this figure becomes less startling in the light of the New York City definition of gifted as a student who is performing one and a half years above grading levels in English and maths. All things being equal, this normally works out at about 10 per cent of the school population.

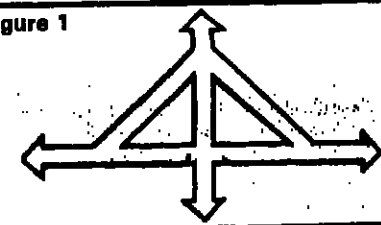
But it is precisely because the standardized aptitude tests take so little account of process or thinking skills that Dr Toback's magnet school was an obvious choice to take part in the NY Office of Special Projects pilot programme on instrumental enrichment. Though New York's Central Board of Education is notably receptive to innovative ideas, it was felt that much of the material previously available was not challenging enough for the gifted.

At Junior High School 126 the IE materials are used twice a week by two gifted classes in the seventh and eighth grades, with ages ranging from 12 to 14, and then linked into science or language and arts classes.

Miss Camille Falco was taking her eighth grade English class through classifications, with the help of figure 2. She moved straight into a "brainstorming" session on the use of the key word - category. What does mean by? Hands shot up, answers tumbled out quickly: things that belong to a group, or class, or division. OK, so it means something arranged in groups. Now it means tend to label things; what criteria might be used in labelling class BC? Back came the



Figure 1



answers: the class might be grouped according to intellectual ability, grade or age.

Questions moved to the home; sorting the laundry was a domestic activity bringing different characteristics within categories, or sub-sets, into play.

Then we were into a brief discussion about why categorization is an important strategy. Strategy? - the way to go about something. And so to an analysis of the categorization instrument.

At the top, it was agreed, we had our universal set of circles which was then broken down into sub-sets: black, white; small and large. They could, of course, be broken down in other ways, according to similarities or differences, and when you analysed and synthesized further, it was to be observed that there were arrows pointing up, going back to the universal set.

Summing up, the exercise had demonstrated how you sort and classify objects according to specific criteria, based upon effective comparisons of different attributes. And so to the next stage and a bridge back into the English lesson.

This time there was a fairly busy picture of a boy in the middle of a country scene. How do you analyse it? Well, you can group things into sets of animate objects, vegetation, and manufactured objects, and then class 8C could write a creative essay about it for homework.

It seemed a tame end to a stimulating session, but meanwhile the 7th grade science class of 12, and 13-year-olds had been tackling an organization of dots instrument with teacher Gerald Lesperance. It looked like one of those old-fashioned children's games where you join up the dots to make a picture, but this was more sophisticated exercise, calling into play thinking strategies and organizational ability to create overlapping figures and then move them about in space.

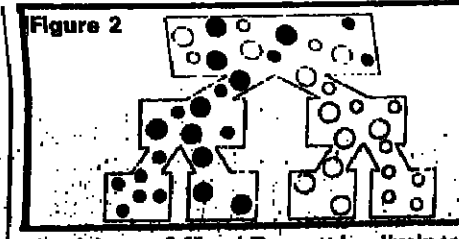
"An asymmetric figure in the model necessitates representational re-orientation in space," reads the teachers' instruction sheet. "The provided cues are reduced until extinction so that an alternate starting point must be found."

Patricia Rowan looks at some of the ways instrumental enrichment is used in New York and London



Photographs by Janine Wlad

Think before you speak... IE in use at Priory Park school, London; the system uses formal diagrams (right and left) to stimulate thinking and discussion



the right way? Hazel Bennett is a lively teacher and, though the dictionary slows things down, she picks up all the girls' contributions to turn them to advantage and gets a very positive response, except from one. "You're not concentrating. Are you hungry? Did you have breakfast?" But the others join in, argue the case for their definitions, and produce a creditable vocabulary.

Next door PE teacher Helen Robson is having a stiffer time with the most difficult girls in the school. They are ranging figures in size and order, but one girl is opting out and two more are being difficult. After a slow start they get on to the lessons to be drawn from size order, and embark on quite an animated discussion on the organization of the school; the police force and the arrangement of tins of baked beans on shelves.

Back in the staff-room it is agreed that progress is on the slow side, but Hazel Bennett is convinced that the girls appear much more positive than in other lessons. "I don't take so much for granted now; I'm more aware of what should be happening in my lessons."

The head, Sylvia Koeke, understandably preoccupied with the forthcoming reorganization, was benevolently open-minded about the value of instrumental enrichment, but her deputy, Sophie Blanchard, is more passionately in favour. "Many of the children round here have been brought up by baby-minders, with no stimulation, no orientation. Even if it only makes a tiny difference, it's worth doing."

Barry Taaffe, the special education inspector nominated to oversee its development in IEA, also believes that it could rescue a great deal of potential, and has urged the education officer to fund a training course to be run in the authority by Frances Link.

Meanwhile the Priory Park girls offer their own testimonials: "I like this work because it helps me to speak positive and not negative."

"It helps me with my spelling and thinking; it also helps me to wait a minute and think."

Conversion piece

Writers on Writing
STV, ITV Fridays 12.30 pm.

In these programmes Richard Hoggart has been discussing with six eminent writers (one a week) the literature they have admired and been influenced by. The mix of his companions has been carefully contrived: two playwrights (Tom Stoppard, Peter Nichols), three novelists (Susan Hill, David Lodge, A S Byatt), and a lone poet (Charles Causley).

The discussions, while all contributing to the theme of "influence", have varied considerably in their approach. While Susan Hill enthused about Hardy ("his imaginative way of looking at the world somehow struck a chord in me"), A S Byatt explained how T S Eliot's writings on "the dissociation of sensibility" have inspired her work. Peter Nichols recalled the impact that Paddy Chayevsky's television plays had on British playwrights in the sixties, while Tom Stoppard made

the interesting point that his writing was influenced by his own reputation: "You're rather stuck with what people think about you in the first place", he said. "We get typed and labelled." Charles Causley, in today's programme, the last in the series, currently interprets "influence" as "inspiration" — on the grounds, I suppose, that he is influenced only by things that happen to him. "The business of writing a poem", he says, "is the result of an experience that knocks one over like a bus".

On the whole, Richard Hoggart has retained the appearance of control over these spontaneous, divergent conversations by pragmatically adapting his questions to the answers he knew were coming. But there have been difficult moments when he has persisted with lines of questioning that weren't getting anywhere. The programme with David Lodge, for example, was characterized by Hoggart's efforts to fit Lodge's work into the tradition of "the novel", and by Lodge staunchly refusing to let him. Acknowledging that "the nineteenth-century classic English novel set up some of the primary methods of representing reality [which] one cannot escape", Lodge insisted that the only significant influences were, for that very reason, the immediate ones — in his case, Joyce, Waugh and Greene. "If you are interested in what I think formed my own writing I think that's where I would stop really." This argument, that influences can be too big to have any significance, was supported by Peter Nichols, who, when asked how he had been influenced by Shakespeare, said "It's like saying... how has being British affected you or you know, how has being tall affected you. It's something you can't do anything about. He's there. Because he's there."

These have been engaging conversations, each writer being, not unexpectedly, forthcoming and articulate. Hoggart has occasionally introduced an interesting question with a question. "You and I both know... or comparing his own experiences as a writer with those of his guests. This has meant that instead of being subjects of an interview, the writers have sometimes been drawn into displays of literary chat. To their credit, the writers have resisted this, but it might have been better if they hadn't had to.

Lynne Truss

Accompanying the series is a free booklet, available from "Writers on Writing", PO Box 40, Maidstone, Kent. Send a large SAE.

At the Palace

A new, 10-strong, professional theatre company specializing in productions for young people, is to be established at the Palace Theatre, Redditch, in Worcestershire, from September 5.

The theatre, which has had a chequered career since it was restored by Redditch Development Corporation in 1968, sits at the centre of Redditch New Town, an urban development which has brought the population of the town from 32,000 to 40,000 in 12 years.

The company's artistic director will be Patrick Masfield, a former teacher who has developed a wide experience of community and youth theatre work.

Redditch District Council has added a further £5,000 to their £30,000 annual grant to the theatre to help in the establishment of the new company. Mr Masfield confidently expects some funding from other sources too. A questionnaire, distributed to 150 schools and educationalists within a 25 mile radius of the theatre produced very positive support for the venture.

In a pilot period from September 5 to January 14 1984, the new theatre will be mounting four productions for different age groups and providing workshop sessions for teachers and students.

Ann FitzGerald

ARTS



Dynamic duo

In the week when Jimmy Young played host to Shirley Williams, Neil Kinnock and Rhodes Boyson, Frances Hill surveys his and Terry Wogan's recent performance.

Jimmy Young has come a long way since "Oh yes jolly well go" and recipes for baked bean crumble. Now he interviews top politicians every few days. Margaret Thatcher recently came on the show. (The Jimmy Young Show, Radio 2, Monday to Friday, 10-12 am). She stayed for an hour. Jimmy Young rattled off questions, friendly and eager, bursting with knowledge, awed and excited but speaking up bravely. He showed thrilled but respectful absorption in all her replies. Yet he was never afraid to press for more definite answers when needed.

"You've certainly given a lot of reasons why unemployment should be a disaster," she said. "But, as I said, in a magazine interview you said that you were convinced that unemployment will soon subside. Now, as I say, at the risk of repeating myself, how soon do you think this is and to what kind of level will you bring it down?"

"I don't know," Mrs Thatcher was forced to reply. (Though of course she did not stop there.) Despite Mr Young's friendly, ebullient manner, his obvious pride in holding his own and his equally evident pleasure in the Prime Minister's frequently calling him "Jimmy", he was well in control of his interview all the way through. He even curbed at least slightly one or two exalted rhetorical flights. His interview with David Steel two days later was equally carefully managed. There was again much first-naming, this time on both sides. At one point Mr Young appeared to call his guest "Dave" but, given his speed of delivery, this cannot be certain. Mr Steel, like Mrs Thatcher, responded with skill to the chance to be "natural", "relaxed" and "himself".

The following week JY kept Michael Foot more or less on the subjects under discussion but without the chumminess, ease or first-naming. There were momentary pauses where names might have been. Michael Foot stuck to his usual declaratory mode of delivery, as though in a hall. Much of the joy and ebullience left Jimmy Young's manner. Although he frequently boasts that his programme is politically neutral, his personal preferences are always quite clear. He likes those who can match his own style, and has almost no skill at breaking the ice with reserved, awkward natures.

It had to happen: Alan Bleasdale's *Boys From The Blackout* has now been published by Granada, both in its original script form (£2.50) and as a "novelisation". This other recent television classic about deprived urban youth, Barry Hines's *Look Back In Anger*, is now out again from Penguin in novel form (£1.50). Mike Leigh, the guru of improvised drama, this month sees two of his best-known plays in a Penguin edition — *Abigail's Party* and *Open Pines* (£2.25). Arnold Wesely's *Waiting for Godot*, these days, is the British popularly stakes; is celebrated

Mrs Thatcher and Mr Steel are his favourites. Tony Benn comes a close third. ("Oh, old Toney, he's all right," he once remarked to Terry Wogan and the listening millions.) Enoch Powell and Ted Heath do quite well, but Michael Foot and Roy Jenkins are far down the list.

Jimmy Young's delighted amazement at his success as an important political interviewer sometimes spills forth as he chats to Terry Wogan when "trailing" his programme. (Terry Wogan, Radio 2, Monday to Friday, 7.30-10 am.) They giggle together about whether JY will play a particular disc to the "Right Hon" who is coming in later. JY, despite limitations, deserves to be pleased.

This week he discussed education with its three main political spokesmen. Next week he holds a similar session on defence and disarmament. He of course regularly chats to people other than politicians: Hugh Jolly is coming in soon to talk about childcare; a crusty lawyer, soothing doctor and flamboyant grocer, who each appear weekly, are very good value.

No serious issues intrude on the Terry Wogan show. It consists of silliness raised to an art. Listeners' letters share jokes about clandruff, digital watches and Wogan himself. It would be unfair to quote.

Both Jimmy Young and Terry Wogan are so unexpectedly good at their jobs that it is hard to resist an attempt to explain how they do it. They both draw on the lack of assurance and good-humoured, slightly cheeky respect for and fear of authority found in both Irish and English working-class life. When on together they parry insults and giggle and make gentle fun of their "betters". "Are you wearing that tie for a bet?" is a typical thrust. The froth — and the substance — subside after lunch. Traditional formulae take a firm hold. Those who think Radio 4 is a media dodo should try Radio 2 after 12. There is *Muscle While You Work* till 12.30. Then dull, Inane Gloria Hunniford interviews show business people, between yesterday's hits, till 2.30.

Familial favourites may be as much loved as ever. But it is a pity that Ed Stewart (2.30-4) cannot present it, and the rest of his programme, in a less tedious manner. Terry Wogan and JY have spoiled us for straightforward, witless light radio.

again by a new critical study from Methuen, *Wesker The Playwright*, by Glenda Leeming (3.95). This book assesses the plays, their relation to their contemporary context, and their critical reception, and draws on new interviews with Wesker himself. Those who enjoyed Clifford Odets' *Roots to the Moon* in its recent West End revival can now read it in a dramatist of social protest, Odets Six plays (Methuen £2.75).

M Church

Opera/dance

In a few weeks' time the Arts Council will decide whether or not to add Opera and Dance, the report of a study group it set up two years ago. The study was chaired by Dr Richard Hoggart (at the time Vice-Chairman of the Council) and represents the views of a membership drawn from within the Council and its offices. The result could exert a significant influence on opera and dance policy at the end of the century: views are currently welcomed from all interested parties.

The emphasis is on practical agreements with conclusions based on existing research, not previously drawn together, or on new tables presented as appendices. Consequently the recommendations have more than usual muscle because they flow from well-argued and well-recognized needs. Even so, this positive achievement may be negated by the failure of the report to come to terms with the central issues on which all else depends.

The first is the overall level of central government funding. The second is the character and quality of the boards of the organizations viewing funds responsible for spending policies. This is curious because the study group is not aware of controversial issues and conclusions bluntly stated. The Royal Opera House is told, for example, that in policy of basing opera programmes on the availability of international star names "seems to us repugnant... and we are not convinced that... this particular... policy of the Royal Opera House is necessarily beneficial to the art of opera."

Similarly the Arts Council and, by implication, other funding bodies are told that dance "has been seriously under-funded to the point where economists are now sitting on their hands. Unless more funds are made available at every level much of what has grown will be lost."

Such authoritative support will be welcome news to the council's dance panel which has striven for years to win for dance a larger slice of the council's cake. The trouble is, as the report acknowledges, that "the expansion of dance only became evident at a time when grant-aid for the arts had ceased to grow considerably in real terms and had, rather, begun to show more than keep near or in line with inflation". Even so, such a shift of opinion represents a dramatic change in the attitude of council members and leading officers if not yet of council policy. Once adopted, it is suspected it will be, dance would become a priority of Britain's major arts funding body. What then might happen to dance?

This is where the quality of consulting boards is crucial. They vary as much in competence and efficiency as in the size of the organization and budgets for which they are responsible. Collectively they control the way artists are commissioned, remunerated and ultimately reach the public. Yet no one questions how those boards are composed and reach their decisions. Present power-relations appear to be accepted by the study group as legitimate that the existing set-up is a "natural" or "inevitable" fact of human nature, nor incapable of change. How change might happen is not spelled out either change will be needed to bring about the many desirable recommendations of the report. Without change of attitude and organization the group's confidence in the possibility of a larger potential audience is unlikely to be realized, nor will the case become clear "for strong public interventions" to reach "the many millions of people" the study group "exists for opera and dance, particularly dance among young people."

Adequate funds representing genuinely supportive policies would solve most of the problems of training, encouragement of new work, public education and audience development to which the report draws attention. Without more cash very little change is likely, not even from the main recommendation to make dance an Arts Council priority.

Peter Brinson

A puzzling phenomenon

Maurice Peston on Margaret Thatcher

Thatcher. By Nicholas Wapshott and George Brock. Futura £1.95. 0 7088 2433 1. The Economic Consequences of Mrs Thatcher. By Lord Kaldor. Duckworth £2.95. 0 7156 1750 8.

There is no doubt in my mind that Margaret Thatcher is one of the most remarkable people of our time. In a society which discriminates against women she has risen to the very top. Moreover, she has done this in a game which is more dominated by men than most, and in a party which represents the forces of reaction. Although I cannot conceive of circumstances in which I might vote for her, it is impossible not to admire the driving force and the personal achievement.

The paradox is, of course, that she is called a reactionary person, working consistently against comprehensives and in favour of selection at 11-plus. Above all she had a kind of hatred if not of education in general then of the maintained schools. But in this book she is shown as a more pragmatic figure, and an outsider in the Heath cabinet. She fought for resources, but in many other areas lost as many battles as she won. My own recollection of DES after she took office was that most officials liked her, but a few hated her. Several told me how emotional she would get, but no one has mentioned this to the authors.

Let me now get on to the economy. We are told that her monetarist views go back a long way. The book contains as an appendix a speech Mrs Thatcher gave in 1968 which expresses a policy similar to that which she has followed in the past four years. She emphasizes the need for controlling the money supply and states an aversion to financing the budget deficit by printing money. Enoch Powell had taken the same position at least ten years earlier, albeit in a more sophisticated

The authors portray her as a decent lady, friendly, good to her family, rather bossy, intelligent, but not at all intellectual. Her Conservatism goes back a long way in her life as does her determination to succeed. One would have thought that the two would go together with some sort of vision of the world and a deep concern for humanity. If Wapshott and Brock are to be believed, she has neither. In a differential political system she would be an apparition. Crossman referred to her as "a tough, able and competent... a kind of professional Opposition Spokesman". But even in power she appears to be a Conservative without a Conservative vision.

Curiously enough, this even seems to be true of her time at DES, at least as it is portrayed here. At the time she appeared to be a consistently reactionary person, working consistently against comprehensives and in favour of selection at 11-plus. Above all she had a kind of hatred if not of education in general then of the maintained schools. But in this book she is shown as a more pragmatic figure, and an outsider in the Heath cabinet. She fought for resources, but in many other areas lost as many battles as she won. My own recollection of DES after she took office was that most officials liked her, but a few hated her. Several told me how emotional she would get, but no one has mentioned this to the authors.

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character. Perhaps she had been influenced by him. It is less likely that at that time she had already responded to the works of Hayek and Friedman whom she did not meet until ten years later. But, as put the matter in context, many of us associated the same views with Ted Heath. The difference is that he learnt from experience and continues to do so. She does not.

I do not mean by this that policy has not changed at all. Monetarism in the sense of controlling the money supply has all but gone, one of the problems being the lack of agreement on which money supply to control. There is a public sector incomes policy, and the budget has been used to fine tune the economy. Public expenditure has risen relative to national income, and in the election campaign increased expenditure on various social services is defended. Intellectually, the government no longer has an economic position, but Mrs Thatcher still preaches she has.

This leads me to the question of whether economic policy could have been pursued differently. The publication of Lord Kaldor's recent speeches in the Lords reminds us that other possibilities did and do exist. His voice is one among many but it is particularly brilliant and clear. He is in the Keynesian tradition, by which I mean two things. First, that the expansion of demand is essential to the expansion of the mixed economy, this not happening automatically but requiring government stimulus. (I myself would also place greater emphasis on supply than he does, but that is by the way.) Second, that economics must and can be applied to real problems as they occur. Proofs about long run steady states, and eventual good times to come, are at best irrelevant and more likely seriously damaging. Those who say that what has happened was a result of bad luck or evil external forces are contradicted totally by the evidence of these speeches. The economic

consequences of Mrs Thatcher were not surprising. What does need explaining is why things have gone on this way for so long, and why the electorate do not find that wholly unacceptable. After all, the conversion necessary is not for Mrs Thatcher to become a Keynesian or a follower of Kaldor. Certainly, she need not espouse the policies of the Labour Party in order to improve her performance.

The puzzle is why her monetarism has been so ineffective and so incompetently pursued. And, given that, why has she not gone back to Conservatism to see where to go next? The answer one usually gives stems from the behaviour of the Labour Party. Mrs Thatcher had too easy a run for too long because the opposition preferred to destroy itself

rather than the government. Reading *Thatcher*, however, I cannot avoid the additional conclusion, facile though it may be, that the explanation also has to be found in her character. She appears to have a single mindedness (including a conviction that single-mindedness itself is a virtue) which makes it virtually impossible for her to accept and admit change. This is excellent when she is on the right path, but disastrous in other circumstances. I conclude, therefore, as I began.

The book is a good read about one of the major figures of today. It told me a lot about her, but very little that I wanted to know. At the end the phenomenon remains just as puzzling. Perhaps, there is less to her than meets the eye, but we will not know that for quite a long time.



Conjuring a victory... The old magician during the 1974 election campaign, shown in Downing Street in Perspective by Marcela Falkender. An odd mixture of the absurd and the banal, the book contains some good sketches of the figures now slugging it out on the hustings. Michael Foot: "... It is doubtful if disavowal to this degree is on target even politically". Roy Jenkins: "... stepped straight out of an After Eight Mints advertisement". Denis Healey: "... scan him more closely and you see that the coo glow is an illusion — rather like the flicker without heat of a simulated log fire compared with the leaping flames of the real thing" (£10.95, Weidenfeld & Nicolson — inevitably). Biddy Paimore

Catering for everybody

ILEA's History and Social Sciences Teachers' Centre in Clapham Road was thronged recently by visitors to a Book Fair organized by its warden, Carol Adams. Having as many books in the field as possible on display at the same time is useful for everyone, she says. Teachers can examine new publications and remind themselves of old ones, the centre can make sure its library is right up to date, and the publishers, of course, quite like it too. One of the most useful opportunities it provides is to view alongside the big educational publishers' displays those of community publishing groups and teachers' cooperatives. Perhaps it was the strong presence of these which lent the fair as a whole a marked emphasis on catering for everybody, seeing things from minority points of view, and redressing the gender biases which traditionally characterize so much conventional publishing.

Much of the community publishing is on the lines of "people's history": *A Hoxton Childhood*, *A Hackney Camera: 1883-1918*, *The Good Old Bad Old Days*, all from the Hackney based *Enterprise*; *Looking Back and I was a Watney Boy* from Peckham Publishing; *The Town Beelive* — a *Young Girl's Lot*, *Brighton 1910-1934* from Queenspark. (There are, of course, similar ventures all over the country though not represented here; information about them can be obtained from the Federation of Worker Writers and Community Publishers, 10 Brief Street, London, SE5.) None of these accounts costs more than £1.50 and most are under a pound; at first hand, they're perfect source material for nineteenth and twentieth century social history. At the glossy end of the market on the same lines are *Trago's* classics by

Maud-Pember Reeves and Margaret Llewellyn Davies on the experiences of working women at the beginning of the century, now joined by Carol Adams own recent contribution to the field, *Ordinary Lives a Hundred Years Ago*. The book fair's major hit, though, was the Sussex based teacher's cooperative, Tressell Publications, whose first booklets found a warm reception in these pages and elsewhere a year ago. Teachers at the fair certainly echoed this interest and appreciation; every other enquiry seemed to be for Tressell. They have now added to their original list seven more publications — including *Contemporary Accounts of the Industrial Revolution*, *The Assassination of President Kennedy* and *Prison Reform*. They are currently planning a Peace Studies series, which will follow up the success of *The Nuclear Debate*.

Multi-culturalism was another well represented area, though there still seems to be an unfulfilled demand for good, simple world history for the middle school years between about 9 and 14, particularly the history of Africa, Asia and the Caribbean. Some Publishing of Kennington has a comprehensive list by Indian authors — and what a tribute to the English scholar Percival Spear, who has been writing on India longer, probably, than he cares to remember, that his *Twilight of the Moghals* is included in it — but little for this lower age group. Heinemann, which has a separate social and multi-cultural studies list, has some interesting and well illustrated simple African biographies; the Centre for World Development Education produces extensive material on Third World issues, and Harrap presses worthily on with its World History Project, but the

gaps are still apparent. The community publishers though are good for social studies in this area with accounts by the black community of experiences in this country and memories of other ones. Bogle-L'Ouverture Publications' books are particularly striking, all rooted in some way in the Caribbean cultural tradition, whether as the dialect poetry in *Touch mi, Tell mi*, or as Brixton Caribbean in the novel *Railton Blues*. The opportunity for all this mental updating was welcome, with reminders at the Holmes McDougall stall of the excellent books associated with the Schools Council History Projects, at the ILEA stall of their own learning materials, and — discovering the HMSO's Books for Schools catalogue, which includes titles on history, politics and the EEC. Methuen have just launched a new series called *Lancaster Pamphlets* for a level, including titles on seventeenth and nineteenth century England and the Ancien Regime in France; Longman are still adding usefully to Seminar Studies, notably with *English Catholicism 1558-1642*; Cambridge are planning a new series on Women in History; RKP have a History Workshop Series.

London teachers who missed the book fair will be able to see anything new at the centre anyway as it will be bought for the library. Their permanent collection of teaching materials and resources, which includes archive packs and a pool of ILEA teachers' open workshops available for copying, are always on display. The centre is open every Monday to Friday between 9am and 6pm.

Jessica Savage

JOURNAL OF CURRICULUM STUDIES

U.K. Editors: Philip Taylor and Bill Reid, University of Birmingham; and Hugh Sockett, University of East Anglia. Reports Editors: Wynne Hartley, University of London; and Rob Walker, University of East Anglia.

Published quarterly, with over 100 pages an issue, *Journal of Curriculum Studies* will be of interest to anyone working with the school curriculum—in schools, colleges and government. JCS has editorial offices in the UK, the USA, Canada and Australia and so publishes work from the entire English-speaking world.

The publisher offers a half-price personal rate, £15, for Volume 15 (1983). Further details and sample copies are available on request.



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BOOKS

Autism and animal insights

'Autistic' Children: New Hope for a Cure. By N and E A. Tinbergen. George Allen and Unwin £19.50. 0 04 1570103.

Case histories of autistic children are studied with prognoses that would make most parents despair: he is uneducable, he will always be dependent, once autistic - autistic for life, she will never be able to relate. There is no doubt that many efforts to help autistic children have proved ineffectual, but Niko and Elizabeth Tinbergen argue that this state of affairs and the pessimistic prognoses that spring from it reflect our lack of understanding of the condition. Any approach, therefore, that promises "new hope for a cure", as the title of this book does, is important. The book deals with four issues: the symptoms of autism; its essence - how these symptoms are interconnected, its causes; and how the condition may be ameliorated and perhaps cured. The four questions are not, of course, unrelated. Notions about causation will influence both how the behaviour of autistic children is interpreted and the kind of treatment thought to be appropriate. On the last three issues the authors find themselves in disagreement with prevailing opinion.

One of the traps that scientists try to avoid is the use of observational and diagnostic techniques that influence what is being observed and diagnosed and how the data are interpreted. The very nature of autism is such that this trap of observer interference is difficult to avoid. One symptom of autism is failure to form a normal relationship with people. Autistic children seem to

physical disease of the brain", sometimes claiming it to be of genetic origin. Such views have undoubtedly contributed to the pessimism about the possibility of cure and to the assumption that autistic children are ineducable. Other have claimed that the personalities of the parents are to blame, that they are "refrigerator" parents whose coldness is reflected in their child-rearing practices. This view may well be so guilt-inducing as to have detrimental effects on the parents' ability to help their autistic child.

The Tinbergens ascribe autism mainly to psychogenic influences, though they acknowledge that organic conditions may make some children more vulnerable to autism-producing influences. They argue that emotional damage in the early months or years of life is the main cause of the onset of autism. Unlike the guilt-inducing theory already mentioned this does not suggest that the emotional damage is the result of defective parenting by "refrigerator" personalities. On the contrary, emotional damage may result from events quite beyond the parents' control, such as the unavoidable temporary absence of the mother or the hospitalization of the baby. But, whatever the triggering event the very behaviour of an autistic child makes it difficult for parents to interact with him in a normal social manner and there follows a downward spiral increasingly damaging to both the child and his parents.

It is unlikely that we shall know for some time the precise nature of the experiences that are likely to produce the onset of autism, of all the organic influences that make for autistic behaviour. In the meantime it is important that notions of the genesis of autism are relevant to the treatment of autistic children. The Tinbergens conclude their book with several case studies which involved either specially derived treatments, resulted in considerable measures of success and seem to support their theoretical position.

These include case studies of treatments developed by Welch involving forced holding therapy in which the mother is trained to hold the autistic child for a period every day, persisting even when initially he resists; of treatments devised by Zappella which involves fostering reciprocal interaction between the child and a therapist at first but later members of the child's family; and of a number of successful treatments by "do-it-yourself" mothers. Since the latter were carried out without benefit of theory or professional experience they inevitably varied in the strategies and techniques the mothers employed. For example, some used forceful holding, others did not. However there seem to be two things the treatments had in common: first, all parents proceeded at the emotional level and with extraordinary care and patience persistently tried to get the child to interact with them; and, second, they all built on the strengths of the child, the "islets of good performance" that characterize autism. The second principle is, of course, a fundamental one for all effective education.

Doubtless there are case histories not reported in this book of children whose autistic condition has remained intractable. Our understanding of the condition has not reached the stage of development where variables can be isolated and reasons for success or failure identified, and books that pioneer a new concept of a condition and its treatment naturally tend to concentrate on the success stories. But expectations can lead to self-confirming "cures". At least this book should help to dismiss the assumption that autistic children are hopeless cases.

John Tamberlain



Napoleon, by Kevin Brownlow (Cape £10.95) is both a beautifully written account of the making of the five-hour, split-screen silent film which took London by storm two years ago and also a fascinating study of obsession. Brownlow was captivated by the power and beauty of the two reels he bought and ran through while still at school, and for the next 28 years he searched for the rest of Abel Gance's daring masterpiece with the intention of restoring his reputation.

Gance himself was obsessed by Napoleon. He visualized a series of six films which would chart the events of his life and show that war was his inescapable and dominating destiny. He decided to make his epic here with every technical innovation, shooting each episode on location in its original setting. He chose his friend Albert Dieudonné for the central role, considering that he had the perfect face. (He believed he could draw performances from anyone; he would settle for nothing less than ideal casting.) Dieudonné had been financially interested in the Emperor since childhood: he astonished Gance with the power and conviction of his audition. The part of Napoleon as a boy went to Nicolas Roudenko, who had played truant from school to haunt the new film studios, and who brought to it all the better lonely passion of a solitary and imaginative child. Overhauling all is the driving force of Napoleon himself, obsession incarnate.

Betty Tadmor

Cultural clothing

The Multicultural Curriculum. By James Lynch. Batsford £6.95; 07134 45106. Multi-cultural Literature in the Classroom.

A Report by a working party of Wolverhampton teachers on the role of literature in education for a multi-ethnic society. Wolverhampton Borough Council Education Committee £1.50.

When a whole generation of children cries out that the emperor has no clothes, the least the tailoring fraternity can do is re-examine its patchwork. The disaffected generation of '81 instructional fame was precisely the first generation of those indoctrinated to the industry that has now been christened education for a multi-ethnic cultural society.

James Lynch lays claim to this book to being the very Aristotle of the industry, no patchwork tailor, more a sort of Cardin for the emperor who has been crying out for new clothes. The Wolverhampton practitioners have concerned themselves with the narrower question asked by every harassed teacher and Romeo-addict: "What shall I do on Monday morning with this or whoever?" Their efforts, their reading list and the methodology of liberal enlightenment, through extended and enlarged texts, have been considered with books they haven't considered, should have even the unimaginative teacher good terms of comprehensive English work.

James Lynch's work is probably

professional. It asks fundamental questions and gives matrices to engender self-consciousness in the teaching fraternity, catalogues of ideas that have been floating around for a long time including those of Stenhouse and pleas for community-school interaction of the most enlightened kind. It is the sort of book that will help student teachers to give the right answers when doing exams on multi-culch.

The Wolverhampton practitioner's method is a carrot to the backward. They go through stories, plays, poems and historical novels, summarize in a few words what the book is about, give advice on how to use it and lure the still-reluctant with notes on pupil response. Their book lists are far from comprehensive but their method easily lends itself to infinite expansion. Their politics are anti-racism through information and discussion.

Both books have taken into account the exhortations of Bullock and the I.e.a. policy papers on the subject. They start with the assumption that schooling is about learning and with a decent dedication to a wider-than-WASP Britain. Their endeavour is nowhere informed by the fact that multi-culch had its birth in an insurrectionary moment in the schools in the sixties and that in the American inner cities (from which James Lynch blithely draws exemplary schemes) the multi-ethnicity of the classroom is often mediated through the barrel of a fired gun.

Farrukh Dhondy

Expertise

Becoming Our Own Experts. Studies in language and learning made by the Talk Workshops Group at Vauxhall Manor School, 1974-79. Obtainable from Orchard School, Well Street, London E9. ILEA addresses £3; other UK order £4.0 9507910 08.

Getting teachers to work together is a problem. In every staffroom there must be a phenomenal amount of shared expertise. The problem is tapping it: getting teachers to talk to each other about what they are doing, sharing problems and solutions, using their own and each other's available outside resources to further their own professional development. Certainly in secondary schools teaching is still largely a private business with the autonomy of a teacher being claimed as a right of secrecy of proceedings. After though by no means all, are convinced of the need for departmental discussion, but inter-departmental discussion on fundamental curriculum issues is still rare. Departmental autonomy is jealously guarded as the constantly increasing pressure for "good" examination results increases the tunnel vision of many heads of department.

The value and potential of working together could not be better illustrated than in the work of the Talk Workshop Group. This most ambitious and imaginative scheme was Vauxhall Manor School's response to the post-Bullock directive of schools, from the ILEA, to formulate a language policy. Their findings are published in a School Council assisted publication appropriately called *Becoming our Own Experts*.

It is a long book, and perhaps the editor's scissors were not sharp enough, but their own assessment is right: this is a unique example of teachers taking responsibility for their own education through language. It shows what can be achieved through in-school in-service education by a most imaginative use of resources: their own I.e.a. advisers, help gained from collaboration with an Institute of Education research project, the help of a Canadian PhD research student, and the stimulus of written residence employed by the ILEA.

The issues it deals with cross the whole curriculum and age ranges. It is full of absorbing children's work which is a refreshing and stimulating reminder of the vitality, variety and power of children's writing and thinking. Particularly talking, and a tribute to the marvellous work of the late Rachael Farrar who so much emphasis in this book is placed on it.

Patrick Evans

Rare plays

Pirandello. By Susan Bassnett-McGuire. Macmillan £12.00. 0 333 30517 1. £4.95 30518 3.

As Susan Bassnett-McGuire points out in this thorough and perceptive study, Pirandello's plays are largely unknown to the English-speaking theatre-goer. Many of his works are not available in translation, and even his best known, well-translated plays are rarely seen on the English stage.

By necessity, then, her introductory study combines description with analysis, and at the same time implicitly makes a strong claim for Pirandello's importance as a dramatist of twentieth-century theatre. His commitment to theatrical experimentation, as well as his exploration of what Martin Esslin has called "relativity" in his perception of reality are clearly and interestingly brought out.

Lynne Truss

BOOKS

Children's literature

Looking for a heart

Audrey Laski surveys the latest paperbacks

Literacy is on my mind today. First, because there are a lot of good books to promote it. The Ahlbergs' *Peepol* (Picture Puffin £1.50) takes babies through the sequencing and detailed skills that they will need to become readers with its clever cut outs and jolly rhymes. Then the I Can Read series, newly in Young Puffins, gives very new readers the good experience they need to "learn to read by reading". Like all the world, I particularly like *Little Bear* (Else Holmelund Minarik, illustrated by Maurice Sendak £1.25) and *Frog and Toad are Friends* (Arnold Lobel, £1.25): both warm, funny and reassuring, and divided into very short stories which can be taken at a sitting, excellent for starters. The same is true of *Feeding Babies* (Chiyoko Nakatani, Picture Puffin £1.10), which is certainly the model of a first information book.

The possibilities of picture books are, of course, endless: *The Task* (David McKee, Sparrow £1.50) is an excellent little parable about the futility of aggression, and *The Kull and the Spider* (Patricia Grace illustrated by Robin Kahu Kiwa, Picture Puffin £1.25) a charming Maori tale about tribal pride; I am, however, depressed by *I'm Taggerty Toad* (Picture Puffin, £1.50); Peter Pavay is a brilliant artist whose work is convoluted and self-regarding and tells a sickish story. Higher up the age range, good pictures help growing readers to make sense of text. *Biro's witty and freshly coloured pictures* are an enormous strength to a pleasant little *Bobby Brewster story*, *The Roundabout Horse* (H. E. Todd, Hodder and Stoughton £1.50) while Charles Keepridge almost makes the reader feel the texture of the horse's mane in his *Black Dolly* (Hodder and Stoughton £1.50).

Pictures may find their greatest value, however, in work for the older slow reader; a splendid new little

series, *Tex the Cowboy*, etc. (Sarah Garland, Collins Colour Cubes, 50p) uses the minimum of words to tell funny stories about an incompetent but engaging cowboy with a clever horse; most of the work is done by the pictures, whose cartoon style will make them acceptable to a wide age-range; like the early readers noticed above, they could be finished fast, which is very important for those with reading difficulties.

But literacy leads to thoughts of the uses of literacy, and I begin to ask questions. I notice that we are into a wave of tear-jerkers, with strange ghostly resemblances to Victorian and Edwardian sentimental fiction. In *Goodnight Mr Tom* (Michelle MacLennan, Puffin, £1.50), a pathetic, crushed evictee brings a crusty old widower into the community of affection - echoes of *Silas Marner* and *Anne of Green Gables*. What makes the story modern is that Willie is not an orphan but the child of a sadistic religious fanatic. I don't want to give a false impression; it is a compulsive read, and the character of Zach, Willie's amazing actorish friend, is a real original, but I am suspicious of it. I am even more suspicious of *Sweet Framme* (Susan Sallis, Puffin £1.25). In many ways, this handles the last year of life of a paraplegic girl determined to make a mark in the lives around her with dazzling tact and candour, but afterwards the reader wonders: is the steadiness with which she faces her oncoming death credible? and even, is the death itself a cop out? To have shown her coping with marriage with the crippled boy she has fallen in love with would have been harder.

There is something of a hollow at the core of this book; there is a terrible void at the heart of *The Scarecrows* (Robert Westall, Puffin £1.25). The writing of this horror story is impeccable and the drawing of the

situation of a boy eaten with jealousy of his stepfather marvellously accurate; but after the whole movement of the book has been to criticize the hero's military values, the book's exciting finish endorses them, and the reader is left morally adrift: it is not the first time Robert Westall has done this. There is a similar self-indulgence in *Under Plum Lake* (Puffin, £1.25), where Lionel Davidson uses a science fiction fantasy form to work out all his ideas of what an ideal life would be like, without any regard for questions about young minds will want to ask about his lost world. Another kind of self-indulgence occurs in *Haunting*

little about the uses of literacy, but others restore my faith. A novel for adolescents set in the near future which neither outrages belief nor tries to have its ethical cake and eat it is *The Fortunate Few* (Tim Kennmore, Puffin Plus 95p); its story of the corruption of a young athlete is hard and sinewy, and sharply told. This is always true of Betsy Byers' novels for younger readers and *The Cybil War* (Puffin, £1.00) is a good example; there is pain here, pain of realizing the duplicity of a friend, but also a manic exuberance. There is also a fairly horrible picture of American school life: the hero's class is having to put on



Tonnie de Paolo's charming, wordless *The Hunter and the Animals*, first published by Andersen Press, is now available in paperback (Sparrow Books £1.50). Inspired by Hungarian folk art, the stylized paintings in muted blues and mauves, clear red and black, tell the moral tale of the hunter who is taught compassion by the forest animals. Here, as yet unregenerate, he prepares for the hunt.

Tales, (Beaver, £1.25) which Kathleen Lima seems to have chosen entirely to satisfy her own preoccupation, with little thought of her readers; the Angus Wilson tale, for example, can have little to say to almost anyone under 40.

All these books make me worry a

play about nutrition, with great disputes about who plays the pickle; Jan Mark's picture of English school life is just as ghastly but in different ways. In *Hairs in the Palm of the Hand* (read it to find out what the title means) (illustrated by Stephen Lewis, Puffin, 95p) she demonstrates

delightfully how the routines all teachers know so well can be subverted by juvenile enterprise and anarchy.

In *The Revenge of Samuel Stokes* (Penelope Lively, illustrated by Martin J. Cortum, Puffin, £1.10) the anarchy is caused by the indignant ghost of an eighteenth century landscape gardener and architect determined to restore the ancient glories of his estate; a nice dry tale, though there is a lot of water about. The smallest English child also has ghost problems in Catherine Seflon's *The Ghost and Bertie Bogdan* (illustrated by Jill Bennett, Puffin 85p); this is a charming Irish tale really much more about the problems of being the smallest than about living with ghosts.

Of course, literacy is for other things as well as stories. Experiments, for example *How to Make Square Eggs* Paul Temple and Ralph Levinson, Beaver 95p) explains that and a good many other experiments of the kind children delight in. My own favourite - though I admit I haven't tried it - is the electric battery built from a lemon. Another kind of knowledge is the folk-knowledge of children's games; *Bluebell Hill Games* (R. A. Smith, illustrated by David McKee, Young Puffin £1.95), is an admirable collection of playground games, complete with illustrations, music and rhymes; lovers of rhymes will also be glad to have *The Hums of Pooh* (A. A. Milne, illustrated by E. H. Shepherd, Magnet, 95p), and may also enjoy *Not to be Taken Seriously* (Colin West, Sparrow £1.00), a collection of rhymes mainly reminiscent of Harry Graham, some of which are very funny, though others are merely silly or nasty. *Beans for Run* (E. D. Zerk and Ian Woodward, illustrated by Tony Escott, Beaver £1.25) is an engaging collection with some particularly striking shape poems; (they are certainly a pleasure only literacy can enable.

Computer science tools

implication or the terrible temptation to talk down and simplify for the lazy reader.

His group generated many significant ideas themselves, and through the respect they were held in by their peers in the US, ensured that those generated in the better-funded laboratories in the US reached and informed people in the UK. It is impossible to do justice to the work of a laboratory on a shoestring where people had freedom to range widely and where the good ideas that this generated were so perceptively taken up and publicized.

I often wondered, somewhat maliciously, whether Michie would have moved into machine-intelligence, if he had realized how very difficult indeed it would continue to be to locate its important ideas, how unexpectedly strange and deep these ideas would be, and how long it would be - until today's expert systems - before any tangible return would come that outsiders could recognize as valuable.

In 1973-4, while still wondering, I witnessed one of the most crass acts of Whitehall Bureaucracy, and one of the most arrogant acts of an FRS, a fluid dynamist, Sir James Lighthill, who, after a cursory examination of machine intelligence and robotics, in a report that clearly

demonstrated his imperviousness to the ideas of the field, concluded that there were no worthwhile ideas therein, and Michie's group was broken up.

Michie's book is worth reading so that such misconceived methods of science funding should not be repeated; I would today particularly commend the book to the DES.

But, aside from this, Michie's collection of Saturday pieces, technicalities allowed and explained, and Sunday pieces, no technicalities allowed, provides worthwhile explanations which encourage and provoke the reader to give them the often careful, attention they need, and will then reward him with a clear understanding of such ideas as heuristic search, what we mean by difficult problems and expert systems. The author is a shrewd and astute, and, if you are too, you will enjoy more of his papers than I did!

Gordon Pask is an opposite kind of maverick. His superabundant capacity is that of throwing out new ideas, and the reader has to do the job of recognizing which should be pursued, and which left to buzz in his bonnet. He was first caught by the cybernetic movement, and his first publication was on modelling the growth of a concept by the growth of a crystal.

In this book, he puts together a vast collection of real and adventurous uses of computers and possible future scenarios, of which, with goodwill, these can be seen as precursors. As always, many of his ideas are individual, not mainstream, and the reader must always decide for himself whether or not there is something in them.

But even more interesting is to compare Michie and Pask's several titles, three-fifths of the book is concerned not with computer science proper - the analogue, say, of the law of conservation of momentum - but with computer system tools: compilers; operating systems; machine language and how it is interpreted - the analogues of levers and pendulum - and with applications and social issues - the analogues, respectively, of clocks and the increasing exactness with which we set and keep appointments.

It is not that these latter topics do not belong in a primer of this kind. I just wish that when people said computer science, they meant something that explains some phenomena of computing, and not, inappositely, also to refer to the tools and uses of computing. This book, alone, would make the basis of a first class A level computer course.

John Laski

Wordlist, dictionary, wordbook, thesaurus

The Young People's Pocket Thesaurus. Compiled by H. Wittels and J. Greisman. Word Lock £2.95. 0 7063 6183 0.

Poets and journalists swear by *Rogers' Thesaurus*. For quite another reason teachers might well be swearing by *The Young People's Pocket Thesaurus*.

Pocket Thesaurus before too long. Seemingly aimed at lower secondary pupils, *Harriet Wittels* and *Joan Greisman's* book is to all intents and purposes a useful, simplified *Rogers' dictionary* (wordlist, dictionary, wordbook, thesaurus) of over 2,000 words arranged with their synonyms and antonyms. But there is one important difference. Where *Rogers* categorizes each word and provides

noun, verb and adjectival synonyms, the *Pocket Thesaurus*, nodding perhaps at the anti-grammar movement in English teaching, does not.

Words are silently classed as verbs or nouns, and hardly ever considered as both. "Reserve" (keep, hold, save, store, preserve, put aside) stands as a verb and hardly ever as a noun. The book is a

visit to a nature reserve. My paperback *Rogers*, by contrast, lists 38 noun-synonyms under the main heading "Enclosure" (a word which doesn't even appear in the *Pocket Thesaurus*).

To be fair, there is an introductory note explaining this confusing practice, but that is hardly enough. Even adapting parts of speech as the

authors suggest will not help a child deal with "present". Classed only as a verb (give, offer, tender, submit, ...), with the help of this book it would be quite possible to write "I lent Jimmy my birthday Jonate" - and it would take a brave teacher to explain why that was wrong.

Hugh David

RESOURCES

Macmillan Mathematics. (Infant/First School Level) by Lynda Snowdon. Consultant: Edith Biggs. Workbooks and teacher's notes £80. Macmillan Education SMP 11-16. (Levels 1 and 2) by the School Mathematics Project. Booklets, learning aids, ancillary materials. Cambridge University Press

At first sight, it would seem that the first thing to look for in a new mathematics scheme is the coverage it gives to various topics. However, now that the rift between "modern" and "traditional" mathematics is rapidly disappearing, there is much more agreement between rival schemes on what the basic mathematical content should be. Two new schemes published this year try to provide schools with mathematical activity of a different character, rather than to give different or new mathematical topics.

Macmillan Mathematics is for primary schools, whereas SMP 11-16 is for secondary schools. Both have recently published their first stages. Both try to involve the child in a more direct and meaningful way, though they use different styles according to the age of their target pupils.

Macmillan Mathematics consists entirely of workbooks printed in black-and-white, with line drawings as illustrations. The cards are presented in either sections (number, money, time, length, etc) each contained in a slip-case. Each section is graded into four levels, with colour coding on the cards to distinguish them.

Infant levels

The first two levels are for infants, ages five and six. The second two levels for young juniors, ages seven and eight. By far the largest

together provide 548 slides.

In some respects the quantity of material is less than in some rival schemes. However, the amount of mathematical work involved is quite substantial. Most of the cards ask the child to carry out some form of practical activity. "Take a handful of pebbles and beans". "Choose a card shape". "Make a chart for a month". The cards, backed up by the supporting information in the teacher's notes, provide excellent suggestions for an activity-based approach to mathematics.

The cost of the materials seems quite low, but the full cost depends



Above, from Macmillan Mathematics. Below, from a Check Card in SMP 11-16.

on how the cards are used. A school using individualized learning might make do with only one or two sets. Clearly, the scheme is unsuitable if the teacher wants all the class to be doing the same card at the same time. However, the approach suggested in Edith Biggs' overall guide is to organize groups. In some cases several children can work together on the same card.

The scheme gives children a chance to work independently and to discuss what they do. The cards are clear and simple to follow - though many teachers do not like to use only cards. The write-in workbooks or worksheets of other schemes are extremely effective and popular.

However, Macmillan Mathematics is well worth inspecting either as a main or supplementary component of a school's resources.

SMP 11-16, like Macmillan Mathematics, is produced by the School Mathematics

Project team. It will now be on sale alongside the existing highly successful SMP books. No doubt the publishers will let market forces decide whether SMP 11-16 is to be a replacement of or an alternative to the present scheme.

Tangible core

The core of the scheme is a very large collection of booklets. Most have 16 pages, some have eight. The booklets are extremely well designed, with a skilful blend of diagrams, photographs, line-drawings, tables and graphs. The scheme does not involve extensive practical work. However, it does present mathematics in a visible and "tangible" form.

Some of the work shows mathematical information lengths of 100m are compared, or the areas of different parts of a flag. Other parts

contain more "pure" mathematics. In both cases the use of visual material makes the mathematics less abstract.

Another noticeable feature of the booklets is the constant reference to people. The mathematical questions relate to situations which show people doing things, or thinking things out. The series presents maths as a warm, friendly - almost human - activity.

SMP 11-16 will provide a booklet-based scheme for the first two years in a secondary school. It will use a book-based scheme for the final three years. Levels 1 and 2, now published, constitute the first half of the booklet scheme. Levels 3 and 4 are promised to appear by early 1984.

Level 1 contains some simple material which, not all pupils will need to follow. More able pupils will therefore complete Levels 1-4

in two years, whereas less able pupils may only cover Levels 1 and 2. Level 2 contains some more demanding booklets which would only be used to extend brighter children.

The booklets are supplemented by a teacher's guide, sets of worksheets, masters and books of revision exercises. There is also a supply of different kinds of apparatus and materials, such as cards, stencils, and tiles. Clearly one disadvantage of splitting the work into components is that the teacher has to do extra organization, and to spend extra time completing the order form! However, such a system does give two kinds of flexibility.

Firstly, by selecting books, children of different ability can be catered for within the same scheme. Secondly, savings can be made when ordering materials. For an intake of 120 pupils, it will not be necessary to buy several class sets. One will be enough as parts can be rotated. Indeed, some books may be used only with particular groups of pupils, and then even fewer copies would be needed.

The flexibility does mean that it is impossible to give an easy answer to the question of cost. In Level 1, the booklets contain very elementary material. Then there are about 10 other booklets. The recommended dose for an intake of 120 pupils is four packs of five booklets, and booklets cost around 45p or 35p

each. Using the quantities suggested by the publisher, a set of booklets and other materials would cost roughly £250 for each level for an intake of 120 pupils. This seems to compare fairly well with buying books, though schools would be well advised to calculate their own requirements very carefully before deciding to order.

The mathematical content does not present "new" topics, as the early SMP books did. It does, however, present mathematics in a less abstract way, trying to involve the pupil more directly. The emerging new series is also well worth a serious inspection.

The material consists of a workbook (which contains notes for the teacher), cassette and tape script. It is organized into 20 units, each focusing on a central game or activity which entails the use of a main linguistic function.

The units are well structured so that students are given practice in the language and rules of the activity under the guidance of the teacher before they work in groups.

Variations on each activity are suggested for practice or revision of the same language - or in many cases, the activities are so enjoyable that students are likely to play some of the games out of class.

In the final section of each unit, listening is properly classed as a conversational skill so the students listen to a short, taped, unscripted dialogue between native speakers

of St-Martin-in-the-Fields, directed (never conducted) by Neville Martin.

Traditionally, Argo has also been the repository of Decca's spoken word recordings, and while the Academy have lately gone off to win awards and appear in the catalogues of other companies, the spoken words have remained, that particular list getting longer, dottier and more eclectic with every new issue.

Now produced only on cassette, each release comprising two cassettes presented in a "library case" the size, shape and weight of a videocassette, the series makes an idiosyncratic history of literature.

Chronologically speaking, the 70-plus titles currently available range

RESOURCES

Highbrow dottiness

Hugh David reviews a selection of spoken word recordings

King Lear, Brideshead Revisited, A Sentimental Journey, Sons and Lovers. Argo Spoken Word Cassettes, Decca Records Ltd, 9 Albert Embankment, London SE1, £5.99 each.

In a Strange Land. A history of the Jews in modern times. Published by the Michael Goulston Educational Foundation, 80 East End Road, London N3 2SY. £15.50

Argo is the slightly highbrow, ever-so-slightly dotty and therefore uniquely English label on which Decca Records put out, not just another Brahms fourth or Tchaikovsky fifth, but Vaughan Williams, Peter Warlock and a whole archive of fine recordings featuring the Academy

of St-Martin-in-the-Fields, directed (never conducted) by Neville Martin.

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market (there is a considerable audience for whom radio programmes like A Book at Bedtime are either too early, too late or too frustratingly short), Argo cassettes have nevertheless always found a place in many school resource libraries. In a Strange Land, on the other hand, a set of three cassettes with background pamphlets and a teacher's resource book, was specially produced for the classroom.

It sets out to tell the story of the Jews in modern times through five short plays. The first, Goodbye Russia, set in 1903, introduces the Levin family who, as a result of a government-inspired pogrom, are forced to leave their native land for a new future abroad.

Their descendants feature in the next two plays. The Golden Door sees one branch of the family coming to terms with a life of sweated labour in the New York of 1911; The Battle of Cable Street looks at the reaction of Jews in the East of London to the rise of Fascism and anti-Semitism in the mid-Thirties.

The final two plays concern the

Second World War and its aftermath. We follow a family on the long train journey that will deliver them to the doors of the gas-chamber at Sobibor, and travel with a survivor of the Holocaust, an illegal immigrant bound for Palestine in 1947.

Written by Bernard Kops, the plays are complete and admirably well produced; the second and third in particular are moving documentary dramas in their own right. Teachers of English and history, will find much in them of value. Although each play presents a great deal of information, directly and indirectly, there is only the slightest feeling that the audience is being lectured. (Author of The Hamlet of Stepney Green and Ezra, Bernard Kops is an award-winning playwright.)

Background facts on the historical and religious context are for the most part wisely relegated to the 64-page teacher's guide, which also contains detailed advice on the best way to present the material to both Jewish and non-Jewish classes.

Gambits for listeners

by Susan Norman

Interact by Guy Aston. Modern English Publications. Workbook, C90 cassette; tape script

Interact is the quintessential modern EFL book. It is full of communication, functions, information gaps, active learning exercises and fun. None of the ideas is startlingly new, indeed most are all too familiar, but by their very familiarity, they have passed into the common pool of EFL lore and they are certainly well presented and exploited in this book.

The material consists of a workbook (which contains notes for the teacher), cassette and tape script. It is organized into 20 units, each focusing on a central game or activity which entails the use of a main linguistic function.

The units are well structured so that students are given practice in the language and rules of the activity under the guidance of the teacher before they work in groups.

Variations on each activity are suggested for practice or revision of the same language - or in many cases, the activities are so enjoyable that students are likely to play some of the games out of class.

In the final section of each unit, listening is properly classed as a conversational skill so the students listen to a short, taped, unscripted dialogue between native speakers

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Highbrow dottiness

Hugh David reviews a selection of spoken word recordings

King Lear, Brideshead Revisited, A Sentimental Journey, Sons and Lovers. Argo Spoken Word Cassettes, Decca Records Ltd, 9 Albert Embankment, London SE1, £5.99 each.

In a Strange Land. A history of the Jews in modern times. Published by the Michael Goulston Educational Foundation, 80 East End Road, London N3 2SY. £15.50

Argo is the slightly highbrow, ever-so-slightly dotty and therefore uniquely English label on which Decca Records put out, not just another Brahms fourth or Tchaikovsky fifth, but Vaughan Williams, Peter Warlock and a whole archive of fine recordings featuring the Academy

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THE TIMES

British Schools Chess Tournament 1983-84

Send now for entry form and rules

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Please send me an entry form and set of rules for The Times British Schools Chess Tournament 1983-84.

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ADDRESS

Primary media

Carry Bazalgette reports on the first National Conference for Media Studies in Primary Education

If teachers are still struggling to establish media studies in secondary schools and colleges, what's the point of trying to set it up in primary schools? The 60 primary school teachers, advisers and media educationists who met in Leicester on May 14 offered a wealth of answers.

The conference, organized by the Society for Education in Film and Television, in collaboration with the British Film Institute Education Department and Leicester Education Committee, aimed to bring together, publicize and discuss media work.

This work has several motivations, as well as part of the conference's work was not simply to celebrate this pluralism but to initiate a critical examination of current arguments for media studies. Some people think that younger children should study the media simply to understand the jobs that broadcasters and publishers do. For others, media studies consists of mastering the technology of video, audio tape or photography, and learning to communicate through them.

If these activities are not used liberally to realize the power and mys-

que of media professionals, then clearly they have a role to play in media studies. But the consensus at Leicester seemed to be that media studies should develop a critical understanding of the media, in the widest possible sense.

Examples of current practice were available in various forms: displays from the ILA, and from Nottingham conference; papers from practising teachers; and workshop sessions, which gave everyone a chance to sample different kinds of classroom exercise.

Shelia McGlade, primary adviser from Camden / Westminster, invited participants to work in pairs taking photographs of each other to the specifications of the sitter, thus introducing some basic questions about representation. Vincent McGrath, a researcher on a BFI/ILBA/Sony project in a London primary school, set up an investigation of newswriting conventions, using video.

A series of exercises sequencing images from photo-story comics demanded an examination of character types and narrative structures. This was presented by Paula Daver, a

teacher from Shrewsbury. Paul Kiddey, from Nottingham, described a number of classroom exercises using photographs from a range of sources.

All the workshops showed that critical analysis of media products can be a lively investigative activity that draws upon and develops many skills, especially those of observation and group discussion. A one-day conference can only offer possibilities, and clearly the activities described are just a few of the ways towards work on the media.

A presentation on children's TV by David Lusted, a teacher adviser at BFI Education, showed the limited ways in which children are defined and addressed by the media, asking how and why teachers would use such material. The range of responses to these questions showed that the construction of longer-term plans and objectives for media education will be debated as vigorously at the primary level as they have been in secondary and FE.

This is not to imply that primary school media studies will be a separate, independent development. The interest that this conference has pro-



Theory and practice: the debate continues

vided has implications for teachers at other levels. For example, practical work has been the poor relation of film and television study in most secondary schools and colleges, but in primary schools, learning through doing is a principle. Extending it to media studies may achieve an integration of theory and practice that most established courses have either failed

studies can be expected to contribute to the constitution of this subject area rather than merely to extend it or avoid it. Primary school media

Conference papers are available from BFI Education Dept, 81 Dean St, London W1V 6AA. Price 30p including post and packing (hard payment by order).

MEDIA

Employment in recession

Alun Butler reviews two series for young people

ETV/RADIO
The Unemployment Industry
BBC1. Sundays, 12.35 pm.
We Can Do That
Radio 4. Fridays, 4.10 pm.

Unemployment is a central issue for the 1980s. High levels of unemployment are now widely recognized as a permanent feature of the social landscape.

The *Unemployment Industry* is a series of five, 25-minute programmes on current developments in the training and education of young people. The target audience is employers, local authorities, YOP and YTS sponsors, youth and voluntary organizations, trade unions, further education colleges, Careers Service, Industrial Training Boards and secondary school teachers.

We Can Do That is a Radio 4 series of six, 30-minute programmes aimed at people who are trying to understand employment, now and in the future. This is not a study of unemployment, but a challenging look at employment in a recession, at emerging trends and ways of creating new jobs. It deserves a

carrot shortage

positive response from its audience. "Less stick - not much carrot" was first in *The Unemployment Industry*, focused on school and teacher responses to growing youth unemployment and the MSC Youth Training Scheme. School and local community work were shown in partnership at Deans High Community School, where people outside school are seen as the real

Those who have used up their YOP entitlement are welcomed to the Sports Club. The openness of the school has led youngsters to see that adults in the classroom can cause problems - by their tendency to monopolize discussions, according to one youngster. But the advantages to the community are recognized.

community school

The message of the programme is that any school could be a community school, given imagination, commitment and the adaptability of its teachers.

The options usually given to young people are either find a job or go on the dole. But there is a third option: create a job for yourself, start your own business. "No qualifications needed" screened on May 15, looked at Project Full Employment Scheme in Clerkenwell, London, where young people on MSC grants get practical and theoretical help to get their own business going.

The confidence-building of the logical approach, and the positive attitudes and optimism of the staff, are an example to everyone working with the unemployed. The challenge of the situation is to try to give confidence. The young people shown looked as if they could make things happen.

"Training for What" looks at two of the YTS pilot schemes being run in South Bedfordshire. The Foundation Year Project is an ambitious, 450-place scheme mounted by the Bedfordshire Education Service. The second scheme is run by A C Delco in Dunstable.

The programme offers a straightforward discussion of YTS and gives a realistic picture of the training and employment based on standards and development through learning

experiences; are clearly presented. This programme should be seen by educators and trainers interested in vocational preparation. Among the fundamental issues raised is the concept of transferable skills; but the definitions given are not entirely consistent, nor are they very clearly presented. They deserve further discussion.

In a thoughtful comment at the end of the programme, Elliot Stern of the Tavistock Institute confirms that it is unwise to train in specific skills where there are high levels of unemployment, but refers to the rhetoric attached to transferable skills when we cannot predict what the labour market will be like in the future.

Of equal significance are the questions of employers' motives, community responsibility to unemployed people, means of providing a pool of trained labour. The honesty is to be admired, but surely YTS is about training, not unemployment. Or is it?

Programme five, "What do you do when you've run out of schemes?" makes uncomfortable viewing. It returns to the issue of whether YTS is really concerned with training, or unemployment. The MSC and some politicians think it is the first: youngsters and many sponsors think it is the second. The desolation of Workington's industrial wasteland and the demoralization of its young people is not readily forgotten.

The girl who was asked "What do you do?" "Now?" "What would you like to do?" "Out" will be remembered for emphasizing that any job is better than none. Clare Short, with customary forthrightness, comments that unemployment demoralizes so much that it doesn't even matter if the challenge is to create employment or ensure that pauper's society. (Incidentally, programme five has been postponed until

June 12 because of the General Election.)

We Can Do That is a series about employment, presented by Brian Redhead and featuring representatives of the Institute of Manpower Studies and prominent employers. The programmes look at employment in Britain, new technology, small businesses as a source of employment, the unemployed and special measures, and ways ahead.

The series makes easy listening. Brian Redhead has a superb interviewing style: penetrating and challenging, with the insight to recognize trends, yet always tackling a weighty subject with lightness and good humour.

The first programme featured Richard Parsons from the Institute of Manpower Studies (who also produced the supporting notes), while

punchy lines

the second featured John Atkinson. Mr Atkinson has a flat delivery, but a remarkable talent for delivering punchy lines. New technology, we discovered, can either create jobs, or be used to organize jobs in a different way. In a recession, the incentive is to take the second approach.

For an analysis of the recession - unemployment hits the weakest in society and a recession forces out the weakest firms - this is stark, and simple.

This series is positive, constructive in its criticisms, and provides a valuable contribution to understanding the economy, employment and the challenges facing society. It deserves to be heard by a very wide audience. It should be compulsory listening for decision-makers - whether they are managers, shareholders or politicians.

BRIEFINGS

radio & tv

Open University

Tawny Owls (Sunday, 06.25, Thursday, 23.50 BBC2)
A case study of the predatory role of the tawny owl, based on work begun in 1945 in Oxford and research using automatic night photography.
The Interview (Wednesday, 12.30 BBC2)

Students are given an idea of the background to both sides of an interview. The candidates for the post of co-ordinator in English are addressed by the headmaster, who later discusses with the interview panel the procedure they will adopt.

CE and general interest

Power Play (Saturday, 14.20 Channel 4)

This week the question of school closure is debated by the studio council. The motion is "that the £400,000 which it costs to keep Highways School open is money well spent. The school is the heart of the community and must be kept open if rolls continue to fall".

On Your Blikes (Saturday, 16.35 Channel 4)

Top cyclist Phil Liggett presents tactics, organization and atmosphere of road racing, using the Milk Race as an example.

Micros in the Classroom (Sunday, 10.30 BBC1)

"Let's fiddle with the facts" continues this series demonstrating for teachers the use and potential of microcomputers in schools.
Télé Montage (Sunday, 11.20 BBC1)

A programme on women entrepreneurs in France features Zou, Anne Sylvestre, Edith Piaf, Claire Bretecher and the most popular of all: "La bédéphile" - the craze for cancan.

Each item is taken from French television, with an introduction in English giving key words.

The Unemployment Industry (Sunday, 12.35 BBC1)

"Not a rockface in sight" follows YOP trainees on a residential course teaching communication skills at Holly Hill, Warwickshire.

The Past Afloat (Sunday, 12.35 BBC1)

An examination of two of the oldest ways of catching herrings - line fishing and drifting.

Soviet Life through Official Literature (Sunday, 17.20 VHF4)

Mary Seton-Watson presents an insight into contemporary Russian society taken from official publications like *Novy Mir* and *Otkrytyye Numbers at Work* (Monday, 18.30 Channel 4)

Fred Harris explains how the basic principles of adding up and taking away occur at work, for example, in a hospital and a shirt factory.

The World: A Television History (Wednesday, 18.30 Channel 4)
"The Agricultural Revolution" concentrates on the period between 8,000 and 5,000 BC when annual crops gradually moved from hunting to farming. Sites at Catal Huyuk and Jericho illustrate the point.

EXTRA

MONEY MANAGEMENT

In business

Suddenly Young Enterprise, the organization which helps youngsters to understand "real" business, has caught on. The number of mini-companies registered for trading through Young Enterprise has doubled to 800 during the last 12 months and there are now 20,000 "young achievers" learning the hard realities of sales forecasting, marketing, cash flow and boardroom takeovers.

This is partly due to the publicity attached to the RSA "Education for Capability" Award, partly to the increasing number of schools and colleges who have found that encouraging students to run their Young Enterprise business from September to June, fleshes out the academic bones of the new Business Education Council courses.

Each Young Enterprise company, manned by 20 or more 15 to 19-year-olds, trades for one year only. The teenagers are sponsored and advised by local industry, they take part in the company's incorporation, subscribe to the memorandum and articles of association and elect a board of management with managing director, company secretary, financial controller and production manager. Often the elected personalities change mid-term. Sometimes it is earlier if boardroom pressure-groups prevail. Either way, more students see more aspects of business.

Having chosen the company name they register it in the usual way, but through the regional office of Young Enterprise, and the company secretary prepares share certificates for them. These sell to friends and relatives at 25p and a maximum holding of five is allowed. At the end of the year, when the company is wound up, the shareholders get their portion of the profits - if any.

Most companies go into production rather than service industries. This means finding a product which the group has both the expertise and time to produce on a two-hour-a-week basis. An occasional company puts work out to craft apprentices or buys through craft markets, lobby stalls and the annual Young Enterprise fairs. Wise companies test the market before choosing the product and name.

Each company is sponsored by a local firm which provides premises for the weekly meeting and two or three business advisers whose role is strictly consultative. It is the "young achievers" who take the decisions - for better or worse.

The benefits of Young Enterprise are many and various. Because it is policy to mix students from different schools with trainees and apprentices from local industry, usually no more than four or five in any group will know each other. They quickly develop confidence as they are forced to argue and submit reports at meetings. Because they are involved with the ups and downs of the business, they have a much better understanding of the problems of production, financial control and marketing.

Youngsters who have gone on to read engineering, take up work in advertising or banking, all talk about the breadth and depth of understanding which the project has given them. Each one produces a portfolio detailing the progress of the company and their part in it. Frequently, it is the sight of this as much as their more confident, informed approach which gives them the edge over the other candidates in the job queue.

Longfield Upper School in Kent has around 1,000 pupils, 72 staff and a school bank with an annual turnover in the region of £750,000-£850,000 of it in the form of gift-edged stock and building society investments. The bank is run by 30 pupils.

It is a considerable achievement, both educationally and financially, for a rural school in an area not renowned for its wealth. More than that, it introduces the pupils to normal adult banking practice from their first days in the school, simplifies accounting for the staff and is a valuable careers aid.

"Philosophically," says Brian Chadwick, the school's registrar and teacher in charge of banking, "the bank has fourfold advantages. It teaches all children money management in the most realistic way possible; it allows those who work in the bank to suit to a career in banking; it is an invaluable educational experience for the more senior pupils who are responsible for training the younger ones; and it gives them an unusual opportunity to take on quite considerable responsibilities. As a result they become noticeably more conscientious and mature."

On the whole, the big banks recognize this, he says, and so far all the school's banking bank trainees have found jobs. This year could tell another story though, as, in the current employment crisis, employers are inundated with able youngsters offering the highest academic qualifications. Longfield pupils are hoping that their impressive commitment to the job and understanding of banking techniques and philosophy will continue to swing the balance in their favour.

The school bank opened in 1965, two years after the school, which was then a secondary modern. Almost as soon as its doors were opened the headmaster was asked to sell National Savings stamps to the pupils. Instead he asked Brian Chadwick, the newly appointed head of history, to research school banks.

"I looked at several and, in particular, the bank at the Hundred of Hoo School. Finally we decided to set up on our own with the nearby Barclays Bank as our clearing bank."

From the start every pupil was issued with an account number and current account facilities. As the school grew so did the bank. "We have been immensely lucky. All the equipment and furniture was donated by the bank. The National Cash Register 160 and 132 machines, for instance, had just been converted to decimalization when the banks changed over to computers and Barclays just handed them on to us. The chairs we got because health and safety regulations say that clerks' chairs have to have five little legs and these have only got four!"

"Our practice is almost exactly the same as it was in the high street banks before they became computerized - to that extent it's old fashioned - but it does run parallel to modern banking practice and some day soon we should be computerized too."

"The trainees learn to use the NCR accounting machines, do the filing, a certain amount of book-keeping, act as counter clerks and do the 'waste' (a summary of the day's debts). We have a remittance clerk, who lists everything on a daily basis and a liaison clerk who follows up queries."

"Any boy or girl from the third year upwards, who is interested in a career in banking and 'wants' experience, they're keen enough to join the trainees, sign a declaration of secrecy and start training under the eagle eye of one of the senior pupils."

From the other side of the counter

Susan Thomas visits a school bank



The branch is open before and after school and in morning and lunch break periods, and the majority of pupils and staff use the bank regularly. Staff are mainly glad of the chance to cash cheques without paying over the odds at the village bank. Like the pupils they also exchange foreign currency and invest savings. The deposit account is currently paying interest at 10 per cent and, says the registrar, is always competitive with the rates paid by the building societies.

All current account holders have cheque books and receive statements of account either on request or after six transactions. Pupils debit their current accounts to pay for field trips, craft materials, school excursions. When buying PE equipment, or photographs or other items for sale they pay directly into the account concerned, either by cheque or cash,

using whichever counter is most convenient. All of which gives them invaluable familiarity with adult methods of money management and relieves staff of the need to waste hours every term collecting and accounting for school expenses.

Every summer, the registrar organizes a week's banking course for as many of the young bankers as are available in mid-August. "Generally, it's about a dozen pupils. It's a school-based course but we also go up to the City, see the Barclays Bank Central Accounting Unit in operation, visit Lloyd's Bank's Head Office and see its computer department in action. We get speakers down from the Bank Information Service and the Midland Bank and spend time on the theoretical side of banking and its application to the school bank."

Whenever possible we use normal banking procedures and banking terminology.

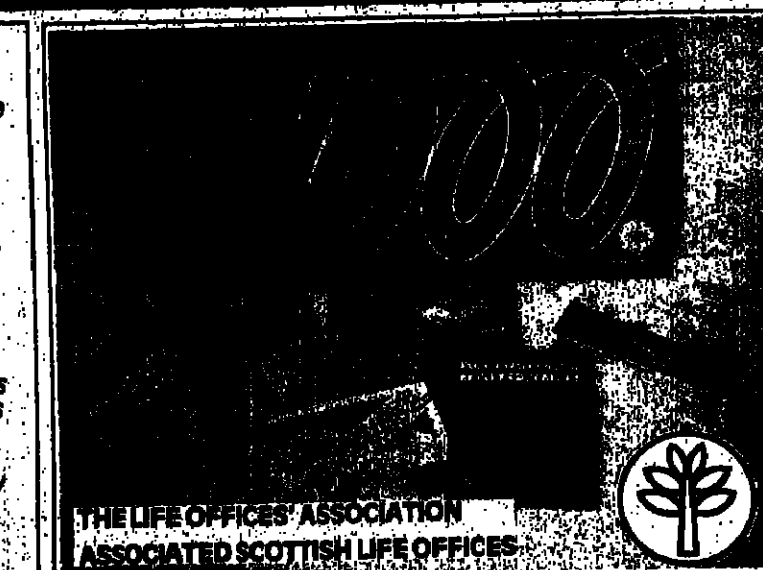
Leavers who have taken up posts in banking remarked on the ease with which they have settled down in the job thanks to the initiation at school. Banks comment on the lack of wastage among their Longfield entrants.

The youngsters don't seem to mind losing their free time. They enjoy the work "because it's real", and "much more interesting than you expect when you start". There is too, a certain cachet in being one of the bankers, people trusted with other people's money and financial affairs.

"They develop a greater awareness of the outside world and a noticeable maturity," says Brian Chadwick. "A lot of that is due to the sound educational practice of having the more experienced teach the newcomers. It makes them think things out thoroughly and consequently they become more efficient and more self-confident."

PROVIDING A SERVICE TO MONEY MANAGEMENT EDUCATION

THE LIFE ASSOCIATIONS support every effort to foster awareness of the importance of personal finance and money management education. An extensive range of resource materials for both teachers and pupils - produced in consultation with practising teachers - is published by LOA/ASLO. The materials cover many different teaching situations and requirements in schools and colleges. In most cases, they are available free. Teachers are invited to apply for an up-to-date list of teaching aids.



THE LIFE OFFICES' ASSOCIATION
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FULL DETAILS FROM Schools Liaison Officer, LOA/ASLO Information Centre, Buckingham House, 67, 65 Queen Street, London EC4R 1AD

Coffee-house gossip

James Bromwich reviews history plays

Tales of a City
Six documentary dramas
Capital Radio
Sundays, 5 pm

Radio has the great advantage over other media of depending on imagination. Nevertheless, it often disappoints. Historical drama too often raises flabby, inconsequential images based on their research and poor, inaccurate writing, devoid of understanding of or love for language.

Which makes it so much more of a joy to listen to documentary drama reaching the standards achieved in this series. The sense of context is so strong and the story-line so well judged, that simply listening feels like meeting a group of strangers whose conversation is flowing, and realising you share common, deep concerns. This is a pleasure to be savoured.

Mrs Pepys' Diary was based on thorough research, with some unexpected material superbly integrated. A follow-up drama, *Reckless*, from the plague is a middle-aged, woman who, seeing Mrs. Pepys' reading Bishop Taylor's book on a wife's role in life, recommends a Leveller text on equality. The producer has the confidence to include quotations from both.

This sort of detail enables the drama to display a sense of period far beyond that of the usual programme, where little sense of the currency of ideas is ever even considered.

But perhaps the most important element for success is the language. There is no feeling of conflict between quoted, original sources and invented scenes. People speak as if they mean it, in a form which is

modern enough to avoid seeming archaic and yet historic enough not to suggest that language has not changed.

A grumbling city merchant, in a description full of longing for the coffee house he is missing, refers to it as a "library for the study of man". Derived it may be, but it fills out wonderfully the picture of the speaker.

Robin Blake has written and produced a series that deserves a far wider distribution than London alone. The dramas are not narrowly focused - certainly *Mrs Pepys' Diary* has little material which is directly related to London.

This was equally true of the first programme in the series. *The Nun of Riburn* constructed a story round a woman's memories of life in the later middle ages; it was good that other parts of modern London, such as Woolwich, were mentioned. In fact, Riburn is simply a priority in which she happens to be placed, the vehicle for a *four de force* presentation of medieval life.

It includes wonderful phrases: "telling their memory clean like a honeyspoon", or the yearning for the past being "like a whore for innocence". The range covered is immense: quoting from Fitzstephen and Chaucer, mentioning Gower and Chaucer, and even managing a vivid picture of the 1381 revolt.

The Astrologer's Apprentice was more concentrated on London, but actually succeeds on a much broader level. Tudor London was portrayed as an exciting metropolis full of trade, adventure and entertainment, bear pits and theatres with Kydd and Marlowe introduced, but not



Oz mouses

by John A Barker

FILM
Desert Hopping Mouse
16mm, 10 minutes.
Produced for the Australian Academy of Sciences as part of the School Biology Project
Education Media International, 25 Bolleau Road, London W5 3AL

The desert hopping mouse is a placental mammal native to Australia. It is found in small colonies that burrow a complex network of tunnels and underground chambers. The reproductive cycle is very much dependent upon the weather, and the young are born soon after rain.

The rodent shows various adaptations for desert life, such as the ability to produce concentrated urine and metabolize water from its food. An interesting adaptation, illustrated in the film, is that the adults drink the urine produced by the young mice.

The mainly nocturnal activities of these animals are clearly shown in the film - parental care, grooming, escape behaviour, recognition (by smell) of a non-colony member, and so on. It is a well presented and effectively photographed film. Although the presentation is didactic, it would be particularly valuable as a help in introducing the notion of adaptation to a class.

A series of seven films in the biological sciences category has been released by Viewtech. The company say that the films reflect the integrated view of biology. They deal with the subject under the headings: Molecular, Cell, Developmental, Genetic, Evolutionary, Ecological, and Behavioural. Enquiries for purchase or hire: Viewtech Audio Visual Media, 122 Goldcrest Road, Chipping Spbury, Bristol, BS17 6XN

EXTRA

Steering the right course

Money management perspectives in the 11-16 curriculum. By Howard Smith

In today's increasingly complex world where many young school leavers find the transition to adult life difficult and traumatic, "money management" courses within the 11-16 school should provide pupils with a "survival kit for modern living". But, what is meant by money management, and how might it be developed within the curriculum? Is it for example simply a means of advocating values such as thrift and hard work as opposed to overconsumption and indebtedness? Or is it basically concerned in dealing with the concept of how families balance outgoing expenditure against income?

In response, both the societal-values approach and concept of family budgeting do provide a starting point in the development of a money management perspective, but each plays

only a small part in the overview of money management courses. In an attempt to widen the perspective in the context of the 11-16 curriculum, one may consider including some of the following topics -

Methods of Payment: Types of money; how to write cheques and complete credit slips; credit cards; budget accounts; hire purchase; credit sale agreements; the law relating to credit, and HP.

Banking: Saving and loan facilities; autobanks; bank giro; travellers' cheques; bank statements; standing orders; mortgages and bridging loans.

Insurance: Risks and protection. Essential and useful insurance for the general public. Insurance documents and cover.

Dealing with Institutions: (a) The Inland Revenue; (b) The DHSS; (c)

Travel agents; (d) Job centres; (e) Shops; (f) Local councils; (g) Community associations.

Retailing and Consumer Protection: Shops and their services. Consumer law and institutions which can help, eg trading standards departments, consumer advice centres; small claims procedures; the Consumers' Association.

Saving and Investment: The main types available, eg BS share accounts, SAYE, saving certificates; unit trusts, shares, insurance-linked schemes; the concept of investment expenditure. Why people save. Rates of interest, and the effects of inflation/and deflation, on saving and investment.

Income and Taxation: Types of income; wages, salaries, fees, commissions, profits and rents. Deductions from income, eg superannuation, graduated pensions. Types of taxes, eg income tax (and tax codes), VAT, Capital Transfer Tax, Customs and Excise, licences and rates. Income tax returns.

House Buying and Renting: Building societies; banks; local authorities; council houses; types of mortgage; estate agents; valuations; solicitors; the rights of tenants; structural extensions and planning permission.

Your own Business: Types of business units. Limited liability. Simple accounting. Forming a company. Business documents-enquiries, orders, invoices, payments, credit notes, and records.

Social and Life Skills: Writing/typing letters. Using telephones. Choosing careers, coping with unemployment, leisure pursuits, hobbies and study courses. Social values and responsibilities. Civil and criminal law. Social rights and welfare, eg equal opportunities, supplementary benefits, maternity allowances.

Family Organization and Finance: "Spending money"; family budgeting; organizing the home on a daily, monthly and yearly basis; running a car; home decorating and repairs - estimating costs, employing contractors and DIY; child care and expenditure; consumer durables - essentials or luxuries.

Communications: Keyboarding with "QWERTY" microwriters and "Moltrons"; Faxing; home computers and software; VDU's and printers; word-processing and data corrections; storing/finding information in homes and offices; the integrated office; bar coding; POST's; information retrieval-reference books, cassettes, discs, Teletext, micro-query.

There are probably additional topics which some would like to see included, and no doubt some items which on balance should be excluded from the money management perspectives mentioned above.

My proposition is that money management courses should be a curricular entitlement for every child in the 11-16 school. Although the proposition implies that such courses be aimed at the 14-16 age-range, there are those who would suggest that keyboard training should begin at the earlier age of 11.

Certainly however, there are obsta-

cles to such changes given the basic proposition or general view that money management courses should be more widely available within schools. Let us consider the nature of some of these obstacles.

Firstly, there are those commercial or business studies departments where the existing curriculum is unfortunately out of balance. This sometimes takes the form of departments which are far too biased towards office skills. In fact, commerce departments pre-occupied with producing high-calibre private secretaries are too narrowly orientated towards a now declining vocational sector, and often fail to make adequate provision for other pupils within the 11-16 school, who might benefit from keyboarding, word processing and money management courses.

In recent years, some schools have tried to redress this balance by introducing either commerce, business studies, economics, law, industrial studies, sociology and/or politics, making them available to 14-16 year old pupils on an option basis, rather than having these subjects restricted only to those in the 16-plus age range.

In some cases where this has been tried, schools have benefited from having a curriculum with wider balance. However, it is perhaps the more academic comprehensive who have tried such bold ventures, and who have had access to mixed-ability and O level potential pupils.

A matter for concern with this type of approach is that the subject matter of topics covered in commerce, computer studies, business studies, industrial studies and economics, has too many overlapping features which give rise to repetition, and cast doubt on the existing structures of syllabuses.

Types of business units, for example, appears on four of the above syllabuses money and banking on all five, and international trade on between three to five of the above, depending upon the actual syllabuses in operation.

In these examples, the educational content may differ only in minor details and emphasis between one subject and another, and often only the more experienced teachers are able to differentiate the topic content between subjects.

Therefore, it would be wise to suggest that the educational content of

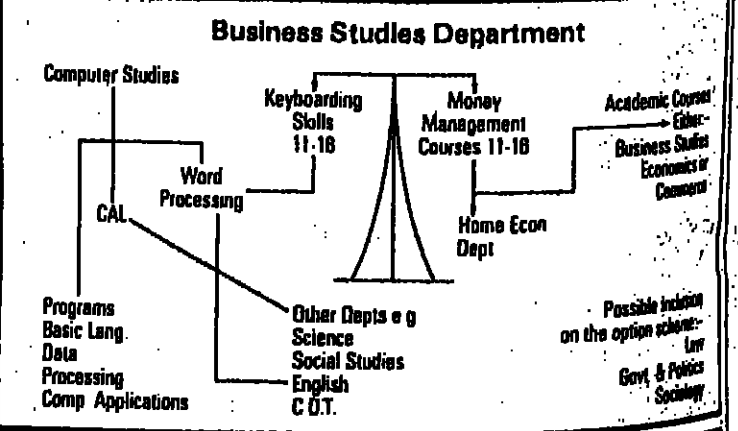
such courses be rationalized more carefully, or alternatively further controls introduced to restrict pupils choosing courses with overlapping content. Similarly, as we referred to the problem of imbalance earlier, we should also be aware of over-emphasis on the direction of academic subjects.

Another more grave concern is countered by those in these related subject areas, is that examination boards have moved too slowly in introducing new examinations in keyboarding, word processing and money management. Where word processing is available, it tends to be restricted to those pupils who have already opted for computer studies, or to the already proficient typists with speeds of over 35 to 40 wpm. One may well ask, what about the pupils from other departments within the school?

Perhaps the last obstacle to change may come in cases where mathematics departments were the first to introduce computer studies into schools, the late 1960s or early 1970s, and where use of school computer is tended to be rather monopolized by such departments. This sometimes means that access for other departments, interested in Computer Assisted Learning (CAL), is restricted to some extent and limits their activities. We should recognize, too, since the late 1970s, the information technology revolution has tended to shift away from the sphere of mathematics and programming towards that of increasing development and application in the commercial and business sector of production. In addition, the growth in software and CAL means that computers, preferably with disc drive (and with word-processing packages) should be available freely to all departments within a school.

In conclusion, I have attempted to construct a balanced curriculum for money management, or business studies departments, which may act as a basis either for innovation, or further discussion, or modification within existing departmental structures.

Howard Smith is Head of Commercial and Economic Studies at St George's Secondary School, Middlesbrough. He is author of the forthcoming "Commerce: A Survival Kit" Pitman Books (In January).



Advanced analysis

British Financial Institutions by Kevin W. Wilson. Pitman, Hardback £14.95, paperback £7.50.

The last decade has seen a rapid increase in the funds handled by financial intermediaries such as building societies, National and Trustee Savings Banks, life assurance companies etc. This advanced text analyses the increasingly important role these institutions play, and relates them to the commercial banks and to the United Kingdom financial system as a whole. The

approach is aimed at college students of banking and finance, those taking professional examinations, and people concerned practically with the management of non-bank financial institutions.

Wilson contends that it is the non-bank intermediaries rather than the banks which have created the major impetus for innovation in recent years. His discussion of building societies is comprehensive and penetrating, especially his assessment of the argument that successive governments have maintained their fiscal advantages.

J. K. Galbraith once said that the debate over what should be counted as money is between people who do not know and people who do not know that they do not know. Such definitional problems are emphasized by the increasing provision by banks of home loans, which are recognized as adding to the money

supply, whilst lending by building societies is not similarly regarded on account of the technicalities of the money supply definition.

Wilson concludes that a detailed solution to monetary control exists, nor is one likely to exist in the future. But his analysis demonstrates that a policy of monetary control must be complemented by full control of non-bank intermediaries. The distributional effects of monetary control, first highlighted by Radcliffe, have meant that attempts to confine money creation have been self-defeating.

It may be doubted how much effect the abolition of the bank's interest rate cartel has had, and Wilson avoids the difficult question of the monetary status of credit cards. Otherwise, his logical examination of the system is scholarly and persuasive.

David J. Whitehead

EXTRA

Personal and business finance: a GCE syllabus

By Peter Stanbrook

Reactions in 1979 to the announcement by the Associated Examining Board of a new O (Alternative) level syllabus in Personal and Business Finance varied considerably. "A first rate idea. It promises to be a genuine help to youngsters about to enter the harsh realities of the world outside school", was the opinion of the *London Evening News*. "The education reformers' latest fatality", commented the *Daily Telegraph* bluntly.

Certainly the introduction of a GCE syllabus and examination of this kind has been a novel event and owes much to the recent spread of coherent money management courses within schools and colleges, backed up by the ever-improving resource material of organizations like the Banking Information Service and Life Offices Association.

Some teachers will argue fairly that money management education is something for students of all abilities, since its usefulness is universal. Indeed, from one's own classroom experience, courses of this or a similar kind were popular with a varied range of arts or science students within a lower-sixth General Studies programme.

However, during the mid-1970s, the Board began to receive requests from its centres that a syllabus be developed to provide a public examination for those who wished to obtain a formal qualification.

Development work on the project began soon after, being directed towards a GCE O (Alternative) level syllabus. Thus, in this first experiment, the Board was aiming initially at a target group of 17-year-olds (or those in adult education), taking Personal and Business Finance within one of a wide variety of courses. It looks very

likely that if the project is a success (early signs since the first examination in June 1981 are encouraging) further development work may lead eventually to a syllabus for 16-year-olds, if teachers express an interest.

In devising the syllabus, the Board wanted to emphasize its relevance to everyday life and how it might help to develop informed citizens capable of handling financial matters with confidence and with an understanding of their importance. The aims of the syllabus are broad, rather than specialist; it is not intended to be specifically vocational but, it is hoped, will promote the general education of the student by assisting in the development of numeracy and literacy within the subject matter of finance. No prior knowledge of accounting, commerce or economics is required by students, and it is intended that it can be taught within one academic year, allowing about three to four hours' teaching time per week.

The subject content of the syllabus is divided into three main areas. Part I (Sources and the Cost of Finance for the Individual) looks at the ways in which individuals can receive income; for example, how wages and salaries are investigated, as are the various ways of borrowing money, such as through banks, building societies, or finance houses.

Part II deals with The Expenditure of Individuals and begins by discussing expenditure classifications - fixed and variable, revenue and capital. It goes on to study major aspects of spending such as accommodation (purchasing or renting) and insurance, together with the way direct and indirect tax-

ation affect the individual's purchasing power.

Finally, Part III (Construction and Interpretation of Accounting Statements) represents the "business finance" section of the syllabus. The aim here is to enable students to grasp a little of the language of finance, so that they can not only "translate" from that language by the interpretation of simple examples of income and expenditure accounts or balance sheets, but also into that language by the preparation of elementary financial statements from given data. No knowledge of double-entry bookkeeping is required, but the idea is for students to be able to understand the summarized published accounts of limited companies, and be able to prepare, say, a simple income and expenditure statement for their local cricket club or a social club. It is hoped that all this subject matter will not be prescriptive, but will serve as a basis for a wide variety of courses in schools and colleges.

The examination is by means of two written papers, of two hours' duration each. Both papers range over the whole syllabus and the emphasis is two-fold. First, the aim is not to be just a test of arithmetic, (though the encouragement of greater numeracy is an integral part of the course); the questions try to assess the student's understanding of the principles underlying personal and business finance, and the ability to communicate that understanding effectively. Second, the questions aim to be practical rather than theoretical, in that they pose circumstances or problems which are constantly met in everyday life. Thus, the hope is that the use of realistic figures and situations in the

examination adds to the relevance of the course. Overall, the standard required is that of O level GCE.

As yet, after only two years of examinations in this subject, the number of candidates is counted in the hundreds rather than the thousands. But the Board, in initiating this new venture, believes that the interest of schools and colleges in money man-

agement is much more likely to grow than to diminish as the value of these courses for all young people is more fully appreciated.

Peter Stanbrook is Subject Officer for Accounting, Business Studies and Economics, Associated Examining Board.

The course in the classroom

By Val Turnham, Roger Woods and Anthony McConway

The business studies department of Amersham College teaches the Ordinary (Alternative) level personal and business finance:

a) as one O/A of several levels, to students on a post-16 O level course; b) as an optional, additional O/A level to students on other business studies courses.

We have been teaching to both categories of students since the inception of the course in 1981. Students in category (b) have to suffice with less class contact than those in category (a), but such is the enthusiasm for the examination that the candidates in category (b) outnumber those in category (a). Several points may be made about our experience to date.

First, and most important, the students definitely like the subject. Many of our students did not like or could not cope with the more traditional O levels in this general area, such as maths or economics, when they were at school. We feel that students can relate to the O/A level in personal and business finance because they can see a goal that is both desirable (because the realism and relevance of the subject matter catches their imagination), and attainable (because they see it as a "concrete" and hence manageable subject).

Second, staff enjoy teaching the subject because of the considerable scope afforded by the syllabus to place numerous topics (such as pensions, mortgages, the real rate of interest, etc.) which are useful *per se* into a numerical context. In our opinion the level of arithmetical ability required of the student is well judged to simultaneously retain the interest of the more able and yet stretch the less able candidates. Our evidence for this is classroom feedback from students working their way through the specimen 1981 and 1982 papers set by the AEB. We feel that students in the 16-19 age group tend to enjoy the "security" of numbers and getting the "right" answer and the course fulfils this role admirably.

We believe that teaching is all about effective communication between teacher and students and this communication is easy to engender in this course because of the enthusiasm on both sides for the syllabus.

We know that students like the course because they watch the personal finance elements of such television programmes as *The Money Programme* and arrive at college with extracts from newspapers ranging across the spectrum; the personal finance section

continued

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Mr. Eric Colley (retired headmaster) with his wife, outside their home in Liverpool.





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THIS WEEK

| | |
|--|----|
| Computers in the humanities | 44 |
| New primary software | 45 |
| Speech synthesis | 46 |
| CLEAPSE course | 46 |
| British Library's schools information retrieval system | 47 |
| LOGO and PROLOG | 48 |
| Computer club for parents | 50 |
| Acorn's speech synthesiser | 50 |
| Case-study examinations | 51 |
| Wordprocessing | 51 |
| Pre-school software in the USA | 52 |
| Producing good software | 52 |
| Bigtrak | 53 |
| BCPL language | 53 |
| Micronetwork | 53 |

The microcomputer, argues Nicky Skues offers new possibilities in terms of educational practice

The computer should not be used as an electronic tutor, which encourages its pupil-users to be passive and dependent recipients in the learning process, but as a tool to enable the learner to become a researcher and explorer in his or her self-directed pursuit of knowledge.

Drill and practice programs are by their nature closely structured and lead the child through a predetermined course. The teacher typically sets the level of difficulty for the child, and specifies other variables such as the number of examples to be worked through. But the appeal of computers will rapidly diminish if, as Frederick Bell has said, "the teacher and the machine run the show." Such strings of discontent over a period of time have already been noted by some Scottish researchers in their observations of a classroom over a year following the introduction of a micro into the classroom.

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EXTRA

continued from previous page

tional criticisms levelled at drill and practice programs there is a further aspect to consider. The use of highly structured programs fosters a certain degree of "machine dependence": the notion that the computer is some sort of superior being in possession of all the relevant knowledge. The fact that the computer has all the answers and is the sole authority on what is "right" or "wrong", dealing out rewards or penalties as appropriate, cannot fail to create a distorted view of the powers, capabilities, and uses of this new technology.

Games of logic or skill include programs such as *Hunt The Thimble* which requires the planning of efficient search strategies to find the thimble secretly hidden by the computer; or *Grungy Towers* which involves solving a murder mystery (as in the game *Cluedo*). Through using these programs children acquire training in systematic and logical thought. The educational relevance of such programs rests on the assumption that these thinking skills are transferable to a variety of other learning situations: whether they are or not is difficult to assess, but in any case this sort of software can offer further benefits on the social side.

Where children work together at the computer (the demands of such games programs often dictate that this should be the mode of operation) they are learning communication and other social skills. They must cooperate with each other as a team; they exchange ideas and learn to respect and consider the views of their peers; and they must learn to communicate effectively with one another. Teachers have commented on the power of the computer to encourage these collaborative and discursive activities among children; research in computer education has also highlighted the advantages of computer use in this respect.

A major strength of the computer is its ability to store and handle large quantities of information. To use a micro for this purpose is therefore to tap its unique resources. Examples of programs which use these informa-

tion-processing families are *Factfile*, *Microquery*, and *Animal*. The first two allow the user to create a "file" of information on any chosen topic and recall the information in various ways; the third effects file creation through the posing of carefully constructed questions by the user.

The computer here is being used in a way not readily duplicated by other conventional means, and the child takes a less passive role than that demanded by drill and practice type software. An individual child is offered the opportunity to draw on and expand a particular fund of knowledge related to his or her own personal interests, and is at the same time receiving the important message that the computer only knows what you tell it.

Simulations again provide an opportunity of utilizing the micro in a novel way and enable children to explore various situations freely, from planning road systems to relieving historical events or studying river pollution. In an effective simulation program children progress down a path of discovery, answering their own questions of "What would happen if...?", thus engaging in a process of active learning.

Seymour Papert, (the originator of the programming language Logo), however, claims that even simulations are just further manifestations of the computer programming the child syndrome. They tend to be over-simplified and the student will only discover what the program designer has previously determined will be discovered. This seems a harsh criticism: simulations can provide useful learning experiences, giving practice in forming and testing hypotheses.

Before moving on to discuss Logo, there is a further point to consider concerning the evaluation of educational software. The discussion so far has centred on the various styles of the programs available, but it is also important to cast a critical eye over their content. Many educational program designers, in seeking to emulate the successes of arcade type software, have based their games on warfare or



one sort or another. Simulations do not necessarily escape criticism, either do we wish to convey the values implicit in the definition of "successful" role-playing and decision-making as being the indiscriminate accumulation of wealth, power and capital?

The work of Seymour Papert using turtles is becoming more and more widely known as the programming language Logo gradually infiltrates school classrooms. In this application of the micro the child is truly "programming the computer" rather than vice-versa. The language Logo is used to drive a turtle (a small robot) employing commands such as FORWARD, BACKWARD, LEFT, and RIGHT. The child, therefore, is in control and appropriates mathematical knowledge through his or her explorations of the turtle's movements. (Logo is largely used at present in the field of geometry, although in its complete implementation it can support the full complement of programming applications.)

Turtle programming allows cognitive development to take place in an environment where the child is the free agent of his or her own learning. Papert subscribes to the Piagetian notion that a child learns by actively exploring the world around him or her, and sees the learner as a model builder, constructing and refining models of reality on the basis of his or her exploratory experiences. The advantages of a turtle environment, are that it constitutes a "micro-world" where the salient features are easily isolated and hence more easily incorporated into the mental model being constructed; and further, the knowledge acquired relates directly to the child's own "body knowledge" or sensorimotor schemata, which thus facilitates understanding.

The commands of Logo may be successively built up into quite complex sequences and therefore the range of possibilities for action is practically limitless. Emphasis is placed on the construction of a solution to a self-generated problem, and in contrast to the closely directed problem solving which so frequently features in conventional classroom situations, there are no "right" answers. Errors or "bugs" are all part and parcel of the solution process, which allows children to adopt a more constructive attitude towards mistakes.

Clearly the philosophy of Logo is

a new direction in educational practice: it represents a major departure from conventional teaching methods in that it transfers much of the control of a learning situation to the learner, rather than placing the student in the hands of a teacher who then prescribes a set course. This is not to say that teachers will become redundant; rather that their role will have to be altered to one of supportive guidance instead of immutable authority.

This should not sound too alarming; we are all witness to the results of such self-motivated knowledge acquisition when we observe the development of speech in young children - they are not taught, but merely placed in a favourable environment and given encouragement and occasional guidance. The rest children do for themselves. With the advent of the micro-computer we are now in a position to provide suitable learning environments for other areas of knowledge.

Special consideration should, of course, be given to the place of the computer in the education of the physically and mentally handicapped, since these children are in a position to derive particular benefits from the new technology. The crucial advantage of the computer here is as an extension of the handicapped child's communication system and his or her ability to interact with the physical world.

Anyone who saw the Horizon programme, *Let's Talk Turtle* (BBC, Feb. 14th, 1983), will have seen clearly demonstrated the pleasure of severely handicapped children in being able to move and predict the movements of their floor turtle via a simplified keyboard - the lack of coordination of their own hand and body movements had previously denied them access to such powerful and precise control of objects. That children need to manipulate the physical world around them to build up concepts is beyond doubt, but for these children such experiences are hard to provide. Similarly, new possibilities for handicapped children to create their own pictures and designs are opened up via the "screen turtle" of Logo.

Nor do computers only help the physically handicapped; the Artificial Intelligence Unit at Edinburgh University documents the case of an autistic child whose communications to other people were finally prompted by a desire to tell of the turtle's movements. A dyslexic 11-year-old boy showed marked improvements in

general abilities and progressed from being the class "clown" to developing a great deal of self-confidence through using the computer. Numerous other such instances doubtless exist - they are as yet isolated cases, but ones which can contribute to the growing body of evidence of the uncanny power of the computer to penetrate and captivate the minds of handicapped, maladjusted, or difficult (and normal) children.

In summary, then, serious thought needs to be given to the direction in which we are heading in the educational world of the microcomputer. It must be realized that drill and practice software and programmed learning techniques have flourished so far only because they lend themselves so readily to automation on the computer.

Minor benefits may accrue to remedial pupils, but even here we may question the nature of these benefits - do the pupils merely progress to being able to complete a page of examples quicker or more accurately? If so, it is debatable whether the gains are worth the sophisticated machinery required to achieve them. Moreover, many sorts of CAL programs encourage a convergent, passive approach to knowledge, where "right" answers gain the rewards, and creative or divergent thinking is treated as "wrong".

The theoretical basis of drill and practice programs runs contrary to emerging psychological theories which take a broader view of knowledge acquisition. Children acquire language with no formal teaching, and this fact serves as an indication that the process could be replicated in other fields of learning. This view pervades the work of Papert in his efforts to "restructure" bodies of knowledge so that they may be absorbed as effortlessly as the child absorbs the foundations of speech and language. Logo claims to serve this purpose in the field of mathematics (although as a complete programming language it also has many other applications).

It is therefore clear that while we should be welcoming the introduction of computers into our primary classrooms we should also be thinking carefully about the best ways to use them. Emphasis should be on the child-centred rather than the teacher-centred software; and care must be taken not to under-use this sophisticated machinery at our disposal. It would be a shame to let this opportunity to exploit a significant technological innovation in our schools slip through ignorance of how to use it effectively.

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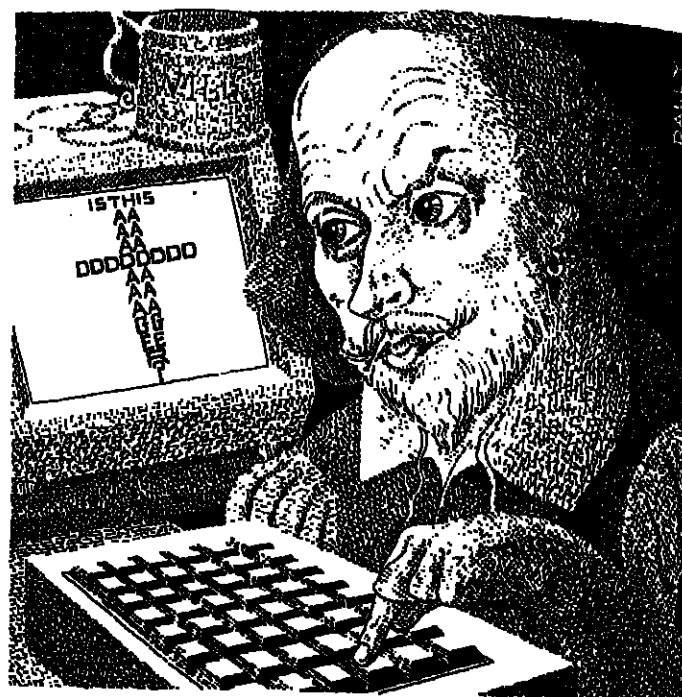
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EXTRA

Cultural bias

Michael Turnbull argues for a dose of positive discrimination in favour of computing in the humanities



The most neglected area at present in computer software is in arts subjects at secondary and especially further education level. At primary level considerable work has been done by the Microelectronics Education Programme in England and Wales, and in Scotland the Consultative Committee on the Curriculum is supporting a number of initiatives aimed at meeting the software needs of primary teachers, and local authorities are also initiating developments. There is still a great deal of work to be done to make computers an accepted and fully functional part of the primary curriculum, but this sector has the advantage of not operating the kind of curriculum used by secondary schools or further education centres where rigid subject divisions apply. In the primary school each of the three R's receives equal recognition and support.

In secondary schools and in further education, (and for that matter, in universities), the computer is largely the handmaid of science and mathematics and the way computer programming is taught is shot through with the concerns of those particular subjects. For the Arts graduate the computer is a foreign body. Computing is still largely the province of the scientific and technological half of the Two Cultures. There is a strong case for a large dose of positive discrimination in favour of the humanities.

Recently the Capital Region Information Centre of the Microelectronics Education Programme issued an information sheet *English and Language Teaching using Microcomputers*. A number of people are already involved in work on the teaching of English and Modern Languages using computers, among them Derek Scrimgeour, Director of Computer Studies, London On-Line Authorities is interested in obtaining funds to organize a project to use the IBM interactive instructional system "English Communication Skills Version II". The project would be involved with ethnic groups and underprivileged people.

Mike Sharpley of the Department of Artificial Intelligence, Edinburgh University is researching into computers and language teaching and has written a paper *Computing Based Teaching Scheme for Creative Writing*. For Modern Languages teachers Graham Davies and David Steel of the School of Languages Studies, Belling College of Higher Education, issue a newsletter called *Calboard* which acts as a vehicle for disseminating information about ideas and activities in the field of computer assisted language learning.

At Flegg High School, Marham, Great Yarmouth, G Hewitt and D. Moore have developed a suite of programs to improve reading standards and spelling, while Daniel Chandler is developing an interest in the use of micros in English teaching as coordinator of the "Micros and English" group for the Schools Council Computers in the Curriculum Project, based at Chelsea College.

Work done in this field at university level is also steadily increasing. At the School of Modern Languages of the University of East Anglia, J Fox is

working in the area of Computer Assisted Learning for Special Purposes. Dr J L Dawson acts as a point of reference within the Literary and Linguistic Computing Centre of Cambridge University where he is the Secretary of the LLCC.

In Dundee, Professor R. W. Last of the Modern Language Department is involved in on-going development as a member of a specialist CAL group. John Higgins of the English Language Research Department of Birmingham University has written material relating to the use of the computer in EFL teaching and computer assisted language learning.

Local authority involvement in this area is increasing: five teachers from ILEA have been seconded for one day a week until September 1983 to work on computers and English teaching with the Computers in the Curriculum Project. They are to investigate work existing at present and to develop suitable software for use within English teaching.

As far as papers on the subject of the use of computers in English and Modern Languages is concerned, there appear to be only two research workers who have published the results of their work: T F John, based at the University of Birmingham, English for Overseas Students Unit, and John Higgins of the English Language Research Department, the University of Birmingham. A third contributor to the debate is G Davies of the School of Language Studies at Belling College of Higher Education. Both Higgins and John have produced a number of software packages for a variety of machines.

CAL programs by John Higgins include ones on Cloze Procedure, Dialogue Generators, Simulations, exercises in the synthesis of given information and an adaptive guessing game. Tim Johns covers the same kind of learning processes with a suite of programs in which the computer records randomly accessed text to make three games, a spelling trainer, Hangman, and a program which demonstrates the main ways of telling the time in English.

In the main the software produced for language teaching tends to be based on developing the most basic of skills: spelling, the fundamentals of grammar. Whether this is in the form of programs for early education as in those for the BBC or the Text Instruments TI-99/4A, or in a TEFL format, there still remains a considerable gap in provision. Atari market

cassettes for learning French, German, Italian and Spanish. Commodore offer programs in English Language for the VIC-20. That apart, there do not seem to be many programs in existence which take the learner beyond the most basic level.

Considerable scope now exists for developing programs in English language for pupils from the upper primary level to the sixth year. In addition the very wide number of courses in communication and writing run by the Business Education Council, SCOTBEC and the City and Guilds London Institute provide an opportunity for computer assisted learning to present and reinforce language skills by showing, for example, how to write different types of letter, how to write a report, a memorandum, a summary.

Here there would be an overlap with the language work in O Level and O Grade certificate work and in A Level and Higher English. With the advent of modularization as a common reference between examinations of a similar type are increasingly made, the usefulness of CAL in English language should become apparent.

In the teaching of literature there is no reason why normally abstract concepts such as verse technique could not be displayed and taught by the use of the computer which would present the information in a more easily grasped form. The use of the word processor facility of the computer, essay writing technique could be improved by, for example, showing how to make an essay-plan and (the reverse) how to summarize a passage. Facts about literary figures could also be reinforced, as they could be in the teaching of history, where bullet-pointed tables of population or balance of payments or boundary changes would allow the student to use the computer to work at his own speed. Provided the programs are well-designed the computer can be a very potent tool in the teaching of languages and languages where the repetitive parts of drill in vocabulary or conversations could be explored as well as the niceties of grammar.

One fundamental difficulty is the incompatibility of machines and the programs written for them. However, this is a problem which will be overcome as it is beginning to be overcome in videocassette formats. More important is for teachers working in the humanities to get to grips with the computer and to begin to make it an integral part of their teaching presentation.

gested the kinds of equipment he thought appropriate to suppliers and several responded. A set of teachers' notes and pupil work cards is now available. The course - called "Microcomputers and All" - leads from the simple concepts of digital codes and memory to the concept of the "stacked program" microprocessor system.

CLEAPSE Development Group Brunel University, Uxbridge, UB8 3PH.

CLEAPSE course

In 1979, CLEAPSE (Consortium of Local Education Authorities for the Provision of Science Equipment) started to plan how it would help teachers in the use of microcomputers in schools. A

survey suggested that there were no courses which could be used for all pupils of both sexes across the ability range. Dick Orton, deputy director of CLEAPSE, was therefore asked to develop a course in this area. The course is intended for all third year pupils; and as it lasts only six to eight hours it can be slotted into the curriculum. Because many teachers have little knowledge of electronics, Mr Orton decided that a highly structured course was needed. He sug-

EXTRA

Goldmines and minefields

Jaquetta Megarry surveys new software for primary schools

Educational software publishing is a potential minefield - but publishers and purchasers see different mines. Publishers must make a profit to survive. Ideally, many might like to publish ingenious, well-filled software packages costing £30 to £90; but if they did, the goldmine would be dug not by them but by software pirates who would inevitably defeat any "copy-proof protection" in the end.

On the other hand, if software is too cheap, there is not enough margin to finance proper development work and documentation. If programs are too simple, teachers may develop their own instead. If the topic or treatment

is not novel or "neat", it will not attract interest - but if it is too different it may be seen as peripheral to the curriculum or idiosyncratic in its approach.

The teacher sees these dilemmas from the other end of the telescope; when computer software has to compete with more familiar and less troublesome resources within a tight budget, you need a powerful incentive to buy software sight unseen, on the basis of a sketchy catalogue description. Some efforts are being made to get around this problem: Longman are staging a programme of demonstrations in teachers' centres, and Ginn will supply free teachers' notes for evaluation.

Nevertheless, in general, software publishers refuse to lend inspection copies to teachers or even review copies to journalists. Although their concern about piracy is understandable, this could be a short-sighted policy. One result is that the contents below are based on publishers' information or fleeting glimpses at exhibitions, rather than systematic personal testing of the software, with the honourable exceptions of Micro Primer (the MEP/Tecmedia packs) and Ladybird/Longman.

In surveying the whole confusing field, only two trends are clear: ● As software packs begin to proliferate, there is an urgent need for bibliographic control. As a stop-gap, if publishers would only agree on a standard method of showing the source, system requirements (make and model, size of RAM, operating system, disc/cassette, etc), age level and subject matter, it would help enormously. An extended version of the ISBN system and British Library Cataloguing in Publication Data coding is the obvious solution.

● Publication dates in catalogues should generally be viewed as absurdly optimistic; they more often reflect hopes than promises of availability. Several publishers who refused review copies did so on the grounds that the draft versions were nowhere near ready for outside scrutiny. To adhere to the announced publication dates of May or June, they will need a quite incredible sprint in the last lap. Any pilot testing in schools, such as Micro Primer and Ladybird/Longman have conducted, seems out of the question on such schedules.

These generalizations apart, everything else is confused. Different publishers are entering the primary market selectively and with different pricing approaches. There is no agreed short-list of machines catered for, although nearly all of them include the BBC Model B and Research Machines 480Z. Nor is there any consensus on whether to cater for disc

systems as well as cassette; there is a general shortage of disc software. Micro Primer software is available for the three Dol-supported micros (BBC, RML 480Z and Sinclair Spectrum) on cassette, though the documentation caters for disc as well. The four double-cassette packs cost £18 each (or £9 at the UK educational subsidized price).

Ginn have announced a sizeable software list, with most programs available on cassette for BBC and Spectrum and some also on Apple (disc) and Pet (cassette). The Mary Rose is a recent release (BBC and Spectrum only) at £32.50 for a fairly complex archaeological/diving simulation. Forthcoming releases include Saqara, based on one of the most important archaeological sites in Egypt.

Like the Mary Rose, Saqara was featured on Bob Salkeld's recent *Micros in the Classroom* (television programme, where both programs seemed to fire the imagination, at least in the hands of highly committed teachers. However, Riding School, in which nine-year-olds simulate the management of a riding school seems unnecessarily restricted in its appeal, surely remote from the experience of inner-city children?

Longman are producing some of their upper primary software on disc and cassette for BBC, RML and Pet. Some programs are also available for Apple on disc. However, Ladybird/Longman (the main primary imprint) are producing software only as cassettes for BBC at present. Nelson's Peak Mathematics software will consist of five packages (Directions, Angles, Bearings, Graphs, Time), each containing one to three cassettes for the BBC and 480Z micros.

Apart from the book publishers, most of whom are newcomers to the primary software field, there is even greater diversity of marketing choices among the many small software firms recently set up by teachers and lecturers. ASK (started by Tom Stonier of Bradford University, with Mike Thomas as its Consulting Editor) has produced a selective range of programs for three-year-olds and upwards. Their range has just extended from the VIC 20 and Dragon to include the BBC machines (£9.95 per cassette).

Carnsoft, founded by Graham Davies of Ealing College of Higher Education, specializes in secondary language programs and authoring packages using the Pet and VIC 20.

Their list also includes "Three R's" packages for primary: 11 programs for the Pet (£15 on disc or cassette) and seven for the VIC (£10 cassette). These cover such topics as Fletcher fractions, the inevitable tables theme (with variations) and "Gap-filler templates" which enable non-specialist teachers to create gap-filling and Cloze tests. They also market a dubiously titled language called Kidstuff for the Pet, which they describe as LOGO-like.

Copy Write is an example of a Carnsoft authoring package. Based on an idea of John Higgins, it allows the teacher to create a short story which the pupil first reads, then has to reconstruct on a screen blank except for punctuation marks. Words are filled in Hangman-style wherever they occur. This makes an interesting contrast with Tray (see Resources page, TES of 29.4.83).

Most publishers seem to be hedging their bets about whether to go for

basic skills or specialized topics. There are 57 ways to disguise arithmetic-testing as a game and make it more palatable; all are useful in small doses, most do little to diagnose or remedy errors. Micro Primer uses animated and chugging blue and green trains to motivate number work, whereas Ladybird/Longman use a schematic Rally course, with the driver's fuel supply depending on correct answers. This works well at the lower of the eight skill levels, though I question the wisdom of insisting that answers to long multiplication or complex addition should be entered from left to right. Work cards related to real-life rally driving provide a link to topic work.

Another Micro Primer program, Cat and Mouse, tests and practices number and keyboard skills. The mouse's chance of escape depends on speed and accuracy in answering, with "slow mouse" setting the highest difficulty level. The combination of animation and gratifying sound effects make this an effective motivator. As it would adapt easily to any basic skill, it would be useful if the notes explained how to go about this.

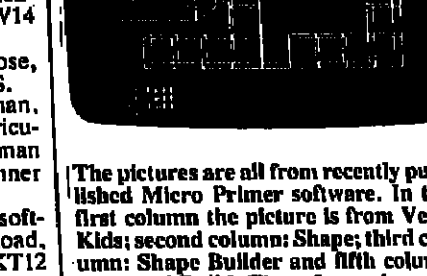


In the same pack, the old favourite of shooting bricks out of a wall is set to work in Brick Up, a vocabulary and dictionary game. The notes on how to modify this one are excellent, and many teachers will want to act on them. Only a warning against using upper case letters is missing.

My favourite, however, was Build, a graphics tool-kit which allows effortless manipulation of cubes and produces powerful illusions of three-dimensional perspective. If they follow up with a similar approach to cylinders, primary-age children could doodle with quite complex building designs. This tool-kit approach could be a step on the road pointing away from teacher-proof packages.

Sources

ASK London House, 42 Upper Richmond Road West, London SW14 8DD.
Carnsoft: 10, Wheatfield Close, Maidenhead, Berkshire, SL6 3PS.
Longmans (for Ladybird/Longman, ITMA, Computers in the Curriculum): Geoff Gallagher, Longman Group Resources Unit, 33-35 Tanner Row, York YO1 1JP.
Nelson (for Peak Mathematics software): Nelson House, Mayfield Road, Walton-on-Thames, Surrey, KT12 5PL.
Tecmedia (for Micro Primer software): 5, Granby Street, Loughborough, Leics LE11 3DU.



The pictures are all from recently published Micro Primer software. In the first column the picture is from Venn Kids; second column: Shape; third column: Shape Builder and fifth column: Time and Build. The software is available from Tecmedia and is produced under the sponsorship of the Microelectronics Education Programme.

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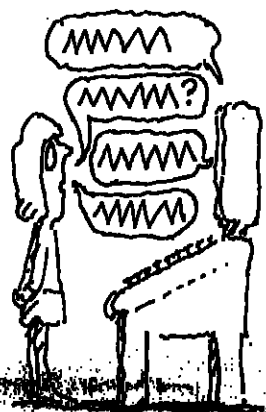
EXTRA

Word perfect?

Tony Gray on developments in speech synthesis

In the student union building at Loughborough University there is a pinball machine. The game is related to the Flash Gordon story, and every half minute or so the machine starts baying with the throat, "Emperor Ming awaits!" The new Maestro has a talking dashboard. The age of commonplace talking computers has arrived, and the next few years will see them in our classrooms.

In a perfect world, artificially produced speech would be high-fidelity and as easily understood as the original. Unfortunately technical problems of generating high quality synthesized speech with a school micro make it necessary to differentiate that which may be understandable in general terms from that which must be precisely intelligible. Put simply, the choice at present is between unlimited vocabulary which is only understandable, and a limited specialized selection of words and sounds with high intelligibility and natural cadence. This enforced distinction is useful



because it makes us examine the applications we have in mind, and consider the nature of the required spoken output. I believe that speech required of an educational computer system falls into two general categories: that which prompts or motivates the learner, and that which carries precise didactic content. Examining an application should therefore enable decisions to be made about quality, extent of vocabulary and value for money.

Using speech as a prompt is the most common and the least specialized application. Here, the speech is intended to inform or elicit a response. The program might say: "Would you like to try again?" or "Well done! Here's another to try..."

In these circumstances it is only important that the speech is understandable and since meaning can be

gleaned from context, the quality of the speech need not be high. Selective visual prompts can be used to reinforce some messages.

One problem with number programs concerns reading level. With some children there is no difficulty - number, reading and language skills develop hand in hand. But sometimes there is a mismatch. For example, a mature reader may have good computational and problem-solving skills. Alternatively, a program may offer number work at the correct level for young children, which requires a reading age about 9.0 for satisfactory use.

These problems can be overcome by using speech as the prime interactive medium within the program, enhancing written messages or being used to reward, explain or encourage. This application of speech does not require high quality and some schools have already tried barely understandable speech systems because they see the potential. For children with special educational needs, spoken output may be particularly important.

For other applications, the speech needs to be intelligible and natural. This is because speech which has a didactic role must convey its precise content, and not merely general meaning. Reading programs, for example, can still only address the graphic aspects of the reading process. Satisfactory software intended to help children establish the important grapheme/phoneme relationship cannot be written because speech output of sufficiently high quality is not yet available.

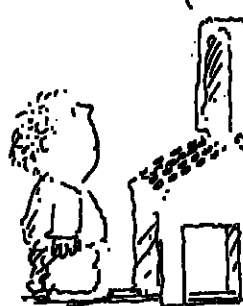
To help pupils develop and practise early reading skills, it may be necessary for the system to speak a set of blends and digraphs as examples for the pupil to learn. If these are of poor quality, the learner will have a poor model to work with, and will suffer accordingly.

Another example concerns the application of synthesized speech in the field of multi-cultural education. Some Asian people are having problems learning English, and many of them are not literate in their mother-tongue. It is not practical to offer long-term personal tuition, since resources are scarce.

This is a classic application for computer-aided learning (CAL). A microcomputer with prompt speech in the mother-tongue and the didactic speech in English could radically improve the lot of both tutor and student. The application of such a system to teaching foreign languages is obvious.

All the examples given in this article could be put into action now. For example, work is under way at Loughborough which concerns using speech systems in the field of early reading development. However, such specialized applications and those like the

Take me to your leader



EFL example, require very particular word and sound sets, appropriate software and a programme of evaluation to assess the effectiveness of the materials and teaching methods. Equally, there is a need to develop our general understanding of CAL. Educational software which indiscriminately uses the full power of the microcomputer can be counterproductive. An unconsidered cascade of graphics, text, sound and speech may be confusing. It is much better to use precise use of these elements to emphasize particular points, or to draw attention to graphic information. This is particularly true of software used by children.

Such work costs money, and while funding for technical development is available (largely because it is a easily identifiable area) funding for applications research is less easy to find. Hardware, software, and classroom practice all need work, but the spread of interests cuts across the boundaries of the funding bodies SERC, DOI, DES, MEP and other commercial companies. No single source can commit itself to supporting the necessary inquiries.

Of course, this work will be done eventually. It must if we are to utilize the technology in our schools effectively. It is hoped that, unlike some recent initiatives, we examine the impact of this equipment thoroughly before it turns up in our schools.



EXTRA

On-line to SIR

Hugh Pinnock on the British Library's Schools Information Retrieval system

The Research and Development Department of the British Library funds research and development projects, and the results will benefit library and information systems, and their users. Clearly, research of this kind is only useful if it coincides with efforts both to make users more aware of these resources, and to give practical experience of them.

So the Department has always given priority to better education for information use. This began in the early 1970s with the higher education sector and then the emphasis shifted to schools, with a series of projects intended to increase awareness of the vital importance of information skills, and to encourage their incorporation into the curriculum.

This process culminated in the SIR (Schools Information Retrieval) Project, in 1979. It was a time when the emergence of cheap and powerful microcomputers made it urgent that schools had access to good information retrieval software, and to the freely available experience of those who had used it.

In planning the SIR project, we rejected the approach used earlier in the experimental introduction of on-line information services into public libraries. Then, we lent terminals to the libraries and provided each with £1,000 towards the cost of searching commercially-available on-line systems. This seemed too big an undertaking, likely to fail in most schools, where experience with major computer systems was very limited.

The SIR system was designed to mirror the commercial retrieval systems which the pupils would eventually encounter, but in a form appropriate for use in schools. Between September 1980 and September 1982, the SIR programs were written, tested, and tried in five secondary schools and one further education college.

The software ran on the Research Machines Ltd 380 Z microcomputer

and was used to retrieve information needed for project work, essays, etc, thereby demonstrating the principles of computerized information handling. A full account of the SIR project will appear in the final report, but I would like to concentrate on the software itself and what it offers schools.

The SIR software package is written in a compiled version of BASIC and consists of two separate program suites:

- the editing or database creation programs, which allow teachers and pupils to add their own information to the system by inputting new records either to an existing file or to a new one; to amend or delete records; and to create an inverted file, or index, to the database
- the search programs, which allow the interrogation of any database for which an index has been created.

The minimum configuration required to run SIR is 32K internal memory with dual double-sided mini-floppy discs. In use, the whole of one disc is required for the programs themselves and for work space. A second disc is employed for the database: one side for the records and the other for the index. This allows approximately 200-250 records to be held on a mini-disc system, and 700-800 records on a standard disc system.

A typical SIR system record:

Document Number..... 0254
Title..... The killer smog of London
Bibliographic Description..... FROM: Man-made disasters. Helmenstern, 1976, pp.60-61
Author(s)..... Butler John E
Keywords..... Kingdom; Air pollution; Atmosphere; Coal; Smoke; Fog; Lung disease; Bronchitis; Sulphur dioxide; Sulphuric acid; Clean Air Act; Legislation

Hardly a complicated thing to create or to understand! The simplicity of this structure, and its flexibility in recording and giving access to the information, are significant. It is ideal for organizing files of newspaper cuttings and other small items, as well as information from or about books, journal articles and multi-media resources.

The maximum space a record can occupy is 472 characters, and within this limit only the document number is of fixed length. All the other fields can vary in length up to a maximum of 256 characters.

The scope for variation in the size of records is considerable, and this is why the figures I gave earlier for the total number of SIR records mini- or standard disc systems can hold are approximations. Equally, the index may occupy more space than the records themselves if an extensive vocabulary is used, and this reduces the total number of records held.

Creating the database is straightforward once the editing programs have been loaded. The system prompts the user for the input of the database name, and it automatically creates a new database and prompts for the input of new records if a new name is entered.

If the user enters an existing name, a list ("menu") in the jargon of computerized information handling) of options is presented: to add new records, amend existing ones, or create the inverted file, the index. This last is done by the system running through a suite of four programs which select the subject words in the searchable fields. These fields are: the title, authors, and keywords. SIR sorts the subject words from these into alphabetical order - then there is an index.

An entry in the index contains the word, with an indicator to show the field in which it is located, followed by the numbers of all records in the database in which it occurs. A crucial feature is the use of the keyword field,

which confers great flexibility. Every word in the keyword field can be searched for, so that the user can structure the information in the database as broadly or finely as required.

Now that the information is in the database, the search programs can be brought into action. The user can specify a search through all three searchable fields, otherwise the system "defaults" to search the title and keyword fields only.

To control the search the user has a set of commands known as the command language. Simply by typing in a command, or a combination of commands, the user can initiate the search and then broaden or narrow it in the light of what the system retrieves.

The simplest search SIR will perform requires only the commands FIND and SHOW. FIND, followed by the subject word for which the search is being conducted, for example OIL, commands the system to look in the index to the database and identify all records which contain that word in the keyword or title fields. The system makes a list of the records which satisfy this requirement and presents it to the user on the monitor screen. The list indicates how many records contain OIL in the keyword and/or the title fields. Then the command SHOW is used to examine the records one at a time.

The command PRINT will provide hard-copy output if the system has a printer, and there are other commands for combining search sets, displaying groups of records on the screen, reviewing searches so far, saving a search, and for running a previously saved search again.

The aim for SIR to look as much like current on-line systems as possible - is achieved by the use of the Boolean logical operators, AND, OR, and NOT. These operators are applied to the combination of search sets to narrow or broaden a search. Variant forms of the same word can be selected together in the same set by

using the facility for right-hand term truncation. For example, FIND POLLUT* will initiate a search for POLLUTANTS, POLLUTE, POLLUTION, etc. A search set produced by FIND SEA can now be combined with that above, through use of Boolean operators, to make a search of some complexity.

This short account of SIR leaves little room for a description of how it performed in the six schools which participated in the project. It was used not just to demonstrate the principles and practice of information retrieval, but for organizing resources to support project work and for creating specialist databases such as one for careers information.

Since the project ended we have released copies of SIR to a number of organizations in education, including the MEP, for use in specified activities. We felt that the feedback from this wider use would help its future development, and the feedback has been very encouraging.

By all the accounts of those who have used it, SIR is a powerful addition to the tools for teaching computerized information handling, and for handling information for other academic and administrative purposes. The feedback has always been accompanied by urgent pleas for SIR to be made available for sale as soon as possible, and we are hoping shortly to conclude an agreement for the commercial distribution of the version which runs on the 380 Z.

This distinction is made because a version to run on the BBC Microcomputer exists, a development which was made possible by funding from the Department of Industry. Negotiations are beginning with potential commercial distributors for the BBC version, and with luck these might be concluded within the next month or two. For both versions, the SIR software will be accompanied by full user documentation, including teaching materials.

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Micros in English

by Carolyn O'Grady

Exploring English with Microcomputers is the first in a series of MEP Readers published and distributed by the Microelectronics Education Programme and the Council for Educational Technology. Edited by Daniel Chandler, English Coordinator of the Computer-in-the Curriculum Project at Chelsea College, University of London, it contains articles on subjects including "Why English teachers should use the computer", "Computer awareness and creative English - mission impossible?", "Does the use of the microcomputer inhibit the development of language in children?", "English teaching and computer-assisted simulations", and "The English teacher and the programmer: how can they talk together?"

The booklet sets out to sample the range of existing investigations into some of the possibilities of the microcomputer, which have relevance to

English teachers. In his introduction Daniel Chandler looks briefly at some of the possible uses of the microcomputer in English: as a word processor, to encourage talk and collaborative activities, creating opportunities for and adding purpose to informal group discussion that the microcomputer can play a part in - and for simulation exercises. He draws attention to the shortage of software in this area, which he attributes in part to the fact that too few English teachers are involved in local program development groups.

This situation, he says, may well change rapidly within only a year or two, as the available software resources what has been described as "the critical mass" required to detonate an explosion of ideas.
The book is available from CBT, 3 Devonshire Street, London W1N 2BA and cost £4.

EXTRA

Modelling work

Michael Thorne on LOGO and PROLOG

Much of the computer software currently available for school use consists of programs whose content is directed at one specific curriculum topic. The styles embraced range from Disguised Drill and Practice (DDP) to teacher directed simulations. In primary schools there is no widespread use of any programming language; secondary schools have, by and large, adopted BASIC but only in Computer Studies classes. Indeed, the only general purpose software to reach a wide variety of subjects is that involving the creation and accessing of a database in some way. Other potential teaching and learning aids borrowed from the computing world — such as word processing systems and financial modelling packages — have yet to pass from the hands of the pioneers.

Database and simulation work apart, the concentration of activity is in maths and science. This has much to do with the current ratio of pupils to computers. If each child in a class had a word processing system which was easy to use then it would seem reasonable to expect a change in the attitude of the class to correcting written work. Redrafting could become an activity in which all students — good or bad — expect to be involved after a piece of written work has been looked at by their teacher.

Moreover, if a computer based dictionary and thesaurus were available from the same computer, to be called up at the press of a button, children's vocabulary might be edged beyond the "I think it's really great" barrier. Given only one computer for the whole class there is no obvious way in which such an activity could be organised so as to become a "natural" part of essay writing.

Were one computer per pupil available, that on its own would not be sufficient. Text processing software

suitable for school use has yet to come on the market. TXED for the Research Machines 380Z has for many secondary schools been the only text editing package available. In terms of its user interface — the part of a package designed to make that package usable by ordinary mortals rather than robots — it is a disaster, regardless of whether the users for whom it was intended were to be experts or novices. (Too many teachers of computer studies eulogise over this museum piece of software).

There is light at the end of the tunnel, however. Peter Weston of the North Wales MEP Centre in Wrexham has designed an EDUcational WORD processing package called EDWORD which attempts to meet the needs, and match the abilities, of pupils at school. The specification of EDWORD is exciting to say the least and the package should be available from MEP in September at a reasonable cost (see page 52).

For the time being, we have to manage with one computer for a class of 30 children. Teacher directed simulations are bound to be popular, therefore, as they can be structured to involve a whole class round one machine. If the class is thereby transformed into newspaper editor and team then just the "editor" sits at the word processing system. That person is then responsible for cutting an article of 1,000 words down to 300 so that it fits into the front page layout. Once the front page has been prepared it can be printed by the computer resulting in a real school newspaper.

In this way the pupils involved learn far more about language than from the abstract exercise "Summarize the following passage in 300 words", however disguised. But the idea embraces

more than just language — issues like bias in the media and the content and hidden meaning of advertisements can arise in a natural context.

Critics of teacher-directed computer simulations point out two major difficulties. First, people in the "real" world often adopt successful strategies for doing things without discovering why they work. A car mechanic may know how to adjust a carburettor so that the engine runs better without any understanding of the physics and chemistry involved. A train driver does not need to know why the track is banked at a certain point on the route, he notices only (if at all) that he doesn't have to slow down.

Second, many simulations depend so much for their success upon the abilities of their creators that they are non-transferable products. Never was this clearer than when in April at the MAPE conference, an audience sat open mouthed watching Barry Holmes and Ian Whittington demonstrate some of their latest efforts. All that is needed to accompany the computer based material they provide is a teacher confident in the subject matter — the police, flying an aeroplane and archaeological exploration amongst other things — and with the time, energy and dedication to involve local resources like the local Chief Constable!

At present, few simulations involve children in actually programming the computer; that is, in actually doing the necessary modelling themselves. But the success or failure of British Rail to run a service to a timetable, the production of a car with a certain average flow of traffic at a busy and complex road junction all depend on "real" computer simulations where the construction of an accurate model is the key factor.



Turtle graphics are both a strength and a weakness of LOGO.

Could not both criticisms of teacher directed computer simulations be met by allowing pupils to create their own? If they build the model then they will necessarily know the hypotheses on which it is founded and the teacher's role will be to advise during the construction.

It would be wrong to think that this in any way limits us to mathematical simulations. Given a programming language in which words can be handled easily, one could model the character of a person by his or her speech. One could thus create conversations between Mr Happy and Mr Grumpy or even Emma and Mr Woodhouse. On the other hand, given good graphics capabilities, it could be possible to model on the computer display the tropisms of insects like wood lice and of small rodents like rats and mice.

Allowing children to program in this way raises the question: which programming language? BASIC is just not powerful enough for this purpose. Indeed the crux of getting computers involved in the humanities in school is to give the pupils more control over the computers they use. With Basic too many details outside of the modelling task have to be absolutely right and a problem cannot be broken down into independent sub tasks. Nevertheless Basic is popular because it is widely accessible in every

mathematics is virtually impossible whilst the possibilities within mathematics are but a shadow of those available from real LOGO.

Under the one computer/thirty children circumstances in the UK, real LOGO is largely untapped. Most teacher trainers are themselves unaware of the full capabilities of the language outside of Turtle Graphics. Prolog has received even less attention despite the fact that its use in education has been pioneered by our own Richard Ennals, an ex-history teacher. Naturally enough for an historian, his early work was concerned with database applications of Prolog. This has overshadowed both the possibilities for modelling and the potential of Prolog to provide children with an automatic hypothesis checker. Using the latter their job would be to provide the hypothesis and relevant facts about the situation, the Prolog system would then do the easy bit and verify (or not, as the case may be) the hypothesis.

A Prolog program consists of a collection of facts and rules and "running" a program involves getting the system to check a given piece of information against those facts and rules. If we follow Enid Blyton and define a villain by the Prolog rule villain (X) if has-beard (X) and we have the facts has-beard (John) no-tie (John) then checking the query ?villain(John) will produce the answer: YES.

The preferred alternatives for modelling work — PROLOG and LOGO — will soon be available on most Dol school microcomputers; we have yet to discover if either of them is learnable under prevailing classroom conditions in the UK.

Logo is the programming language famous for its mentor, Seymour Papert, and for its Turtle Graphics commands which allow the user to program a pen-pulling Turtle to walk about the computer's display screen. Thus the commands

FORWARD 10
RIGHT 90
FORWARD 10
RIGHT 90
FORWARD 10
RIGHT 90
FORWARD 10
RIGHT 90

would cause the Turtle to trace out a square of side 10 and finish facing the direction in which it started.

Turtle Graphics are both a strength and a weakness of Logo. The strength derives from the fact that this idiosyncratic view of computer graphics allows children access to ideas previously thought very difficult — differential geometry for example. In short, through simple means very complex end products can be achieved.

The weakness derives from both a tendency to equate Logo with Turtle Graphics and the relative ease with which the Turtle Graphics part of Logo can be implemented on microcomputers. Too many people are publishing collections of Turtle Graphics routines with a drill and practice text book and calling the result Logo. As a result, many teachers Logo means drawing pictures on the screen. They're not quite sure why this is a good thing except possibly for mathematics because it is obvious that geometry is involved.

But what makes Logo so good for modelling is not just the Turtle Graphics. Rather it is the surrounding in which these particular facilities are embedded: the ability to solve a big problem by breaking it down into totally independent subproblems, which when solved and combined polish off the whole; the ability to manipulate text easily and to process lists of information; the ability to do recursive programming. Without these features use of Logo outside of

Prolog shares many of the qualities of Logo. Programs can be built up in modular fashion by fitting together building blocks, constructed independently of each other, and it is possible to extend the language in such a way that, once added, new commands appear as if they had been in the language all the time. Until recently, however, the version of Prolog available to schools did not have any graphics capabilities. A first step at rectifying this omission has been made by Derek Ball of Leicester University who has augmented Prolog for the Research Machines 380Z by adding Turtle Graphics. The result is a little like the language Frangais; on sufferance a shock of culture comes on switch de l'un langue de the other. Nevertheless Derek Ball has paved the way for a fuller exploration of the classroom potential of Prolog.

Both Prolog and real Logo are promised for the BBC computer and the Sinclair Spectrum soon. Prolog will almost certainly be available first and according to its designers will come with real Prolog graphics — where a point is plotted by inserting conditions upon it — and with a friendlier user interface than that of the 380Z version. Real Logo is currently available only on the 380Z in a version from Edinburgh University. All other versions for Dol machines are useless imitations as far as modelling is concerned.

Nancy Roberts and her collaborators have demonstrated in a recently published book *Introduction to Computer Simulation* (Addison Wesley) that we in the UK have barely scratched the surface. Fundamental to the work has been the computer language DYNAMO, which effectively makes the notion of differential equations available to students who don't know calculus. Amongst others they describe projects involving the Nuclear Power Controversy, family dynamics, solid-waste disposal, family dynamics, the flu, the rabbit population, the ecology of the Kalbar Miteas, urban growth and heroin addiction and its impact on the community. All this and more will be possible when real Logo and Prolog are widely available.

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EXTRA



Parents also admitted

J P Prior-Egerton describes a computer club for parents

The time is 9.15 and a group is working with five computers in the room designated as the infant library. The number of students seated in front of a computer varies from one to six. Not an ideal maximum but sometimes the interest generated causes other people to look over shoulders. John turns around and asks Alan to help him with a particular problem. "I've got the first diagonal of my cross and I need some help on the second one. I'm sure I need to type in 21 to 0 with a step of -1 but it isn't working." Alan agrees and they work through the line together, type it in and run it. A larger group are working on a more difficult exercise of trying to get an arrow to hit a flying duck, they are extremely intense, Alan hovers but does not interfere.

Nothing unusual you might say, just a modern school well endowed with computers and a slight familiarity amongst the group. Omitted in the first paragraph was that this was 9.15 on a Thursday evening and the group were parents who had been working since 7.15.

Within the normal school hours with the children we have three stages in the introduction of the computer. Initially each class has the computer for one day a week using programs

specifically selected to help children become familiar with the keyboard. Once the children are keying quite happily, programs are selected to help us to help the children. Ideally having committed ourselves to the belief that the computer is there to help the children, each child should have an individual library of tapes. But without the resources and finances to achieve this happy end we have to select software and group the children.

To those worried about the loss of interaction caused by the new computer age, we say come and stand behind a group of children in our school working on a computer program. The discussions in the small groups with occasional teacher intervention aids the learning of the children, the interaction reinforces the learning.

The next part of the three stage plan is the introduction of the language LOGO. When we first introduced computers into the school the school deputy and I went on courses offered in our area. We caught a glimpse of a whole new world and began to plan how we felt we should introduce it within the school. These were then discussed with the other teachers and we ran our own in-school courses on familiarization with the computer.

Freshly stimulated we took every opportunity to present the computer at Governors' meetings, parent committee meetings and parents evenings. Although the Parent/Teacher Committee bought a new larger computer, we were disappointed by the reluctance of the parents to touch the box.

After this it was proposed that a Computer Club for parents might be formed. The club would provide a deeper understanding of their potential in the home and business plus the educational potential for the child in school. Among the parents we discovered that there were at least two Pet machines, a Vic 20, an Apple and a good handful of Sinclair Spectrums. One Dad was found who was self-taught on the Spectrum and was

prepared to co-ordinate and plan sessions for an adult computer club. The first meeting of the Computer Club was held in the Autumn term. A committee was volunteered and a subscription decided upon. Decisions on the frequency of meetings were held over to judge the demand; they are now held weekly and that is not enough for some members. One objective that programs should eventually be written for specific needs as seen by the teachers of this school.

Another is that programs made by club members initiated in the club should remain the property of the club and not of individual members. All software is used by the school.

The belief that children benefit by the close co-operation of school and home has been highlighted quite recently by a particular incident. A child quite casually showed me a simple and well-prepared comprehension exercise based on a drawing. I pointed out



that because of the way she had written it, it could be put on to computer tape and used with the younger children. Within a week the smiling child told me how she had worked with Mum on the program and later that week a smiling mother proudly produced the finished product at the Computer Club. From a small beginning I hope we can, through the club, break down the barriers and strengthen our school software library.

After a club meeting a father commented on how much time he now realized a computer could save him in his business. It can help in his business, I am convinced it can help us in ours.



Interaction is evident both in the parents' Computer Club and in school computing

Chip chat

Frances Farrer listens to a new speech synthesizer

A NUMBER OF OLD CHARACTERS AND MANY POSITIVE ANSWERS ARE AVAILABLE NOW FROM A NEW PROGRAM THIS IS THE FIRST TIME COMPUTERS ARE LINE FORTH

The new speech synthesizer made by Acorn, when plugged into the BBC Microcomputer system, can say all the words above in the voice of Kenneth Kendall. (Somewhat in Dalek mode). Unfortunately, the 165-word vocabulary does not include any reference to speech, so the message could not explain that the words are, as it were, audible.

THE DATA IS AVAILABLE FROM THE PRESS OF A BUTTON ON THE COMPUTER AND FEW ERRORS ESCAPE YOUR EYE.

Here, we needed the word "yes". Perhaps the letter "R" might just have done, as "I" did for "eye". The synthesizer can "say" letters and parts of words from which you can assemble further words. You can get "WORSE" from "WERS" plus "Z", for example, or "SEETH" (if you need it) from "C" plus "TH".

The voice is reasonably clear, although it falls down on "B" and "M", "V" and "D". The pitch of the voice can be altered but the volume cannot be increased without auxiliary amplification.

All this is very exciting and quite new, and because of the novelty the applications are as yet not formalised. Speaking computers are already used in special education. The advantages for blind or partially-sighted people are obvious: once they have mastered the "qwerty" keyboard (and some keyboards are available in Braille) they can type in their own programs, which can be made, by "user-friendly" that they tell the user if he or she has given the wrong instruction.

Not all users are programmed though most, disabled or not, welcome greater friendliness. For blind, dyslexic, or simply very young people, however, friendliness may mean the difference between using and not using. Acorn also suggest that a wide variety of activities can be made very much more attractive to young children by the addition of speech.

Other uses include games and language practice - simply, most of the functions now available, make the functions now available, make more agreeable. The company plans to supply software through the new primary package using speech will not be available until perhaps August.

Teachers can also use their own programs using the B-plus-speech chip combination. The effectiveness of this depends, in ways, on the skill of the programmer. The intention is that users need to learn nothing to use it, which should give teacher-programmers a great deal of scope.

In many ways the chip could be said to be more useful for programmers than for users. Its vocabulary suggests this. Words such as "parameter", and even "acorn" are included, but not "tape" or "cassette". Possibilities for the future sound, as so often in computing, like science fiction. Speaking computers in foreign language teaching is an obvious application, but speaking seems more extraordinary, and computers speaking to each other on the telephone feels positively scary.

All that, however, is some time away. Meanwhile the speech chip is obtainable from Acorn Computers. It costs £55 including VAT. This comprises the integrated circuit plus the manual, and conversion to a 1.2 megabyte operating system. There is a facility for software-loading via ROMs.

Further information can be obtained from Acorn Computers, 10 Rendell Street, London WC2.

Applications test

Paul McGee on new case study papers at CSE and O-level

This summer many candidates for computer studies examinations at CSE and O level will face case study papers. There has been some confusion as to why such papers have been introduced, but understanding their purpose by teachers can help pupils to prepare for them.

The backwash effect of examinations on the curriculum means that examination boards have to constantly review their means of assessment to try to provide a favourable environment for good teaching in the classroom. London University had no previous experience of their own when they introduced a case study paper into their newly created O level computer studies examination after they had seen the problems of other styles of examining computer applications. The London Regional CSE Examination Board is also introducing a case study paper, albeit in a slightly different format to reflect the needs of CSE candidates.

Previous examination questions on applications have fallen into three categories: those on applications specified by the syllabus, those where the candidate chooses the application, and those where the application is assumed to be common knowledge.

In the first method, there is great difficulty in specifying a particular application in sufficient detail as far in advance as syllabuses require. The applications therefore tend to be stated in general terms, such as payroll or stock control, and the questions became very similar to the second type. These questions have to be asked in general terms and the examiners have to ask for a general outline of the system otherwise they cannot assess the relevance of the candidate's response to specific points.

There is then only time to ask about one of the following important areas: input, output, storage or implications. Any reasonably taught candidate can thus confidently prepare a good answer to an applications question. This can cause real problems in awarding marks when such a question is compared to others where candidates have a choice of questions.

The third approach is to assume that candidates have studied a particular application such as banking or computer-aided design, although the obvious unfairness of making such unwritten assumptions has not seemed to worry chief examiners in the past. A case study paper overcomes this unfairness, and also allows the candidate to demonstrate a range of valuable skills rather than simple reproduction of pre-prepared material.

The London University case study paper is a two-hour paper based on a given application, and all questions are compulsory. Candidates are given a moderately detailed description of the application approximately two weeks before the examination. Up till now, the applications in the O level have concentrated on school topics such as school roll and fourth year option choices, ideas within most candidate's experiences. This will not necessarily continue, but the application should be reasonably within the average candidate's understanding. The description is reprinted on the examination paper so that candidates are not tested on their ability to memorize details.

The O level computer studies syllabus has the following objectives: The candidate should: ● be able to understand the concept of a stored program ● be aware of the translation processes involved in communication with the computer ● be able to codify information, select an appropriate data structure and process it meaningfully

● be able to collect, validate and present data (using computer system) and evaluate the worth computed results

● be aware of the advantages and disadvantages of information processing using a computer in organizations, eg schools, businesses, libraries, local government

● be aware of the social consequences of information processing

● be aware of the practical problems of man/machine communication

● be able to formulate a simple algorithm

The case study paper is defined as testing the third, fourth, seventh and eighth objectives. This will involve the candidate in deriving the information requirements of a system, and specifying the system precisely in terms of the output needed, the input data and any necessary files.

It is a pity that the six is not included because the best way to examine candidates' understanding of the implications of computers may well be through applications. It is unrealistic to expect many pupils at 16 to have the maturity to discuss in abstract terms a topic such as privacy and security of information, whereas it is reasonable to expect them to be able to answer specific questions on a clearly defined application.

The purpose of giving the candidate the specification in advance is to reduce the chance of misunderstanding during the stressful time of the examination. The candidate should seek advice in the two weeks before any terms or descriptions which are not understood, and should thus arrive at the examination with a clear idea of the scope and purpose of the application and be prepared to answer questions which use, but do not test, this knowledge.

The major question which teachers and candidates face is how much detailed analysis should be performed before the examination. Some candidates seem to have merely given the text a cursory glance without asking themselves why certain specific pieces of information had been provided. Judging by the amount of crossing out in the answers, these candidates tended to discover their importance during the examination.

Other candidates prepared very detailed systems which they were determined to present to the examiner regardless of what the questions said. The best technique is to concentrate on the information processing requirements rather than on details of implementation. Candidates should have some appreciation of the size of the application and some estimates of the times and storage capacities which are likely to be involved.

Although the case study questions so far have been presented in the form of continuous prose, there is no reason why questions in the future could not involve interpreting detailed or systems flowcharts. Similarly, some of the questions "test" the candidates' ability to formulate, and communicate in appropriate ways, the methods of solution of problems.

There is an unfortunate tendency among candidates and their teachers to overuse program flowcharts which are so detailed that the general solution is obscured. Candidates should realize that many algorithms can be written neatly and precisely in ordinary English, and that a sequence of numbered statements is frequently better than a series of cryptic messages in "boxes". For describing complete systems, it is often better to use one of the standard systems flowcharts which convey a great deal of information about the media, the origin and destination of data used, and the sequence of operations.

The difference of approach between the CSE and O level papers reflects what candidates can be expected to do. The London CSE paper is in booklet form and the questions can be answered in a straightforward manner. Very few answers have an effect on other answers and there is very little need for recapping. The marking scheme for such a paper is fairly simple and candidates do not need any specific practice beyond normal examination preparation. It is not even essential, although it is desirable, that the whole paper be taken at one sitting during the trial or mock examinations.

The current O level paper is very different. It is absolutely crucial that trial examinations are as similar as possible to the final examination because one question can have an effect on another. The basic file design

chosen can influence the choice of input device because it can determine the quantity and type of the data to be input.

One consequence of this interrelationship is that candidates are well advised to spend a considerable portion of the two hours preparing the answers in rough. This strategy requires the sort of confidence which can only come from having successfully completed trial papers.

Most teachers of computer studies have never attempted case study papers, particularly under examination conditions. They are often tempted to skim through the examination paper and then produce a rough or outline solution upon which they base their teaching and advice to their pupils. At a course at the London University

Institute of Education, 60 teachers attempted previous papers in the time allocated. Many were dismayed at how little they had done by the end of the time, but later they were encouraged to see how their performance rapidly improved with guidance and practice.

This article might have given the impression that preparation for such examinations is based on exam technique. Although this is important, the major contribution comes from having followed a course in which pupils have the opportunity to apply the principles of information processing to a variety of applications. These examinations are in their infancy, but those who designed them believe that they can be a reliable form of assessment which will give pupils a worthwhile, stimulating and enjoyable course.

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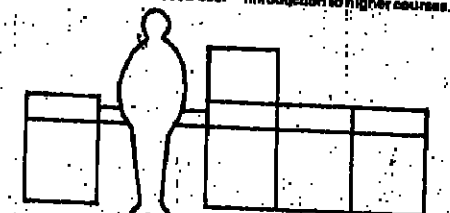
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Teachers can also use their own programs using the B-plus-speech chip combination. The effectiveness of this depends, in ways, on the skill of the programmer. The intention is that users need to learn nothing to use it, which should give teacher-programmers a great deal of scope.

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EXTRA

Writing systems

Peter R Weston on word processing

Nelson Computer Assisted Learning

NELCAL is Nelson's new imprint which has been established to produce a series of top-quality educational programs. A comprehensive range of subject areas is covered and the programs are suitable for use on several brands of microcomputer.

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A word processing system enables the user (pupil and teacher alike) to enter text, store and retrieve it, look through it, make changes and finally print it. Word processing is rapidly becoming a fundamental part of secretarial, commerce and business studies courses. There is also increasing interest among teachers of English and modern languages as well as primary school teachers. It is the control over the manipulation, and hence the final format, of text which interests teachers seeking to develop communication skills in their pupils.

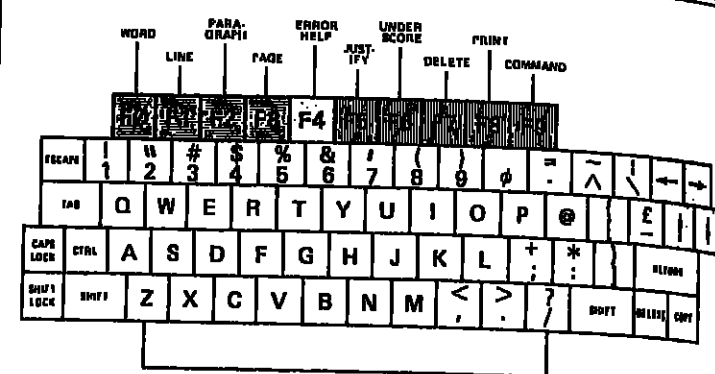
The basic components of a word processing system are a keyboard, a processor with a memory to hold text, a screen display, external storage to hold permanent copies of documents and a printer. Dedicated commercial word processing systems are far beyond the price range of schools (eg £4,000 for one system). However, the microcomputers already in schools can provide a word processing capability through the addition of a suitable computer program known as a word processor.

Ability range

In general terms the facilities available within the package must relate to the ability range of the pupils who will use it. Automatic page numbering may be useful to staff using the package to produce work sheets, but how many pupils will be manipulating several pages of text? Ideally pupils should be able to work without constant recourse to a teacher. Packages should be robust in terms of user interaction and in the sense that they handle error conditions (eg a faulty disc, without losing the text or simply giving up. For those pupils following a secretarial/commerce/business studies course it is important to consider whether the user interface (the communication between pupil and package) will allow them to adapt from any previous keyboard experience. One must be aware that some word processing packages may contravene what pupils have already learned.

Many of the word processing packages available for microcomputers are claimed to be suitable for pupils' use. However, few seem to have been designed by teachers. Their mode of operation, in particular the user interface, often reflects methods more familiar to those with computing expertise than teaching experience. Base of use is essential, particularly for pupils whose experience of microcomputers may well be limited. Commonly used functions should be available preferably via a single key stroke as opposed to holding down two keys simultaneously, such as the use of SHIFT and CONTROL keys. Preferably commands should be easily remembered. Mnemonic codes for example, such as S for "search", T for "top of page" will facilitate use by pupils.

We accept that pupils will make mistakes. In the learning situation this often arises through lack of understanding. Teachers cannot, and should not, alongside every pupil using a microcomputer. Thus the provision of helpful, easily understood



The Edword keyboard layout.

error messages is vital to allow pupils to both learn and explore a word processing capability. A message of the form "It is only possible to move into the left margin by using..." is far more useful than "This command is not allowed" and is infinitely preferable to "Error 17". Continuing on a similar theme, I believe the inclusion of "safety net" features to be essential for inexperienced users. For example, it should be impossible to lose a document without confirming that this is the required action.

The relationship between text entry, screen display and printed copy is not always as direct as one may imagine. A pupil should be able to enter text and, at all times, simultaneously see an exact copy on the screen of what would be printed on paper. Not an unreasonable request perhaps, but packages exist where text is entered in a 40-column mode (possibly useful for class demonstrations) and yet it is printed in 80 columns. Even if you can obtain an 80-column display, this may not be available for text entry.

This inhibits pupils in producing good document layouts. Some packages display special symbols on screen to indicate that sections of text should be underscored or centred on printing. For pupils, such text should be underscored or centred on the screen. A screen based system (one displaying an exact copy of the printed version) with 80-column display, and ideally a 40-column option, is essential for educational word processing.

The availability of resource materials for pupil and teacher is very limited. Generally word processing packages are supplied "complete with user manual" but little else. It is most unlikely that a user manual will prove to be a suitable text for pupils. Indeed some may well prove to be unintelligible to teachers. You will need to assess what resource material you must produce specifically for your pupils. Study the package's documentation carefully. Is there a step by step guide that introduces and explains the various features of the package? Consider the order of presentation of facilities, the level of language, and the ease with which you can refer to specific commands and facilities.

Technical considerations may have to be biased towards hardware you already have. The three major areas to be considered are the word processing software (program) itself, document storage and printing facilities. Word processing software is available on tape, disc and, more recently, ROM (Read Only Memory) chips. Disc is the most common medium and provides a fast means of getting the software into the internal memory of the microcomputer. Software on tape may be cheaper but is slower by a factor of at least 50. With both tape and disc it is usually possible to make copies for additional microcomputers but this may well infringe copyright and cannot be condoned. When software is loaded from tape or disc it occupies some of the microcomputer's internal memory, possibly restricting the size of documents to be handled. In contrast software on a ROM chip is permanently plugged into the microcomputer and uses a minimal amount of internal memory. Obviously a chip is required for each microcomputer but the software is always ready when required.

Documents can be stored permanently on disc or tape. Ensure that the package you purchase can utilize the medium you want! Disc provides a

fast, more reliable means of storing and retrieving documents. Each disc has a catalogue, or directory, containing a list of all documents stored on it. It takes about one second to find out what is on a disc. However, you generally require written lists to be maintained together with positions indicated by tape counter readings. Not surprisingly disc storage is more expensive than tape - typically £25 for a tape recorder and £200 for a disc drive.

There are two types of printer generally available - dot matrix and daisy wheel. Dot matrix printers are prevalent throughout our schools. They are relatively low cost printers that produce a pattern of dots to represent each character. The features available vary between printers but may include automatic underlining, text emboldening, double width characters and italics. You should match the facilities offered by the software with those available on the printer you intend using. Good quality daisy wheel printers, essential for correspondence, are far more expensive and may not offer the same range of facilities. For pupils' use the dot matrix printer is perfectly adequate. Not all word processing packages will necessarily operate with every printer. Some require specific printers whilst others may need additional software which costs extra. Check this carefully - do not make any assumptions.

Since September, 1981, I have directed a major curriculum development project partly funded by the Microelectronics Education Programme (MEP) in Wales. We have produced software and teaching materials as part of an Educational WORD processing package.

EDWORD. The views expressed in this article result from, and have been incorporated within, the development of this package.

Edword has been designed and shaped by educationalists with considerable experience both of teaching secretarial skills and of computer-aided curriculum development. In developing Edword our approach was to design a word processing package to meet the needs, and match the abilities of school pupils. Its development was monitored by a group of teachers drawn from all the I.E.S.s in Wales. Trialing and evaluation has taken place in schools throughout Wales.

Evaluation

The software runs on both model A and model B BBC Micros and can use tape, disc or a network for document storage. Edword will also work with any printer compatible with the BBC Microcomputer.

The final package includes a 16K ROM chip containing the software, a flip book for use by pupils (free-standing, self-instructional), keyboard insert (to label function keys), OHPs, wallcharts, specimen documents on disc and cassette, teaching guidelines (strategies, methodologies and management) and a User Manual.

The screen is divided into three sections. The top area continually displays information about the stored document, while the bottom area is used for command entry and error messages. The document is displayed

continued on next page

Writing systems

continued from previous page

exactly as it would be printed in the centre section which is known as the 'document window'. The information area at the top continually shows the document name and the current mode as well as the current page, line and column position of the cursor. The indicator "P" is displayed if the system is printing. "U" if underlining is turned on and "O" if overtyping is turned on.

Most common functions can be accessed with a single keystroke. Less common functions are accessed by hitting the COMMAND key (see keyboard layout). Pressing the COMMAND key produces an audible indication and causes a request for a command to appear in the bottom section of the screen. A single letter command will then initiate the appropriate operation. Some commands require extra information which is also requested of the screen. The object keys (WORD, LINE, PARAGRAPH, PAGE) allow a section of the document to be illuminated. Certain operations can then be performed on the whole of the illuminated object.

Both the flip book and keyboard insert use colour codes for the object, operation and error help keys. Errors are normally just indicated by an audible "beep". If required, an explanation of the error can be obtained by pressing the ERROR HELP key.

The explanation will appear on the bottom two lines of the screen and be cleared on the next keystroke. Text is entered and inserted in a document simply by using the normal keys on the keyboard. Any symbol which is typed will be inserted into the document at the current cursor position. Naturally the cursor can be moved around the document using the four cursor control keys. The system will automatically rearrange the text as alterations are being made to keep the text within the specified margins without splitting words.

The current line can be centred between the margins with the cursor left at the start of the next line. If an object is selected then the illuminated section of text is centred between the current margins. Justification involves padding a section of text with extra spaces to give a straight right-hand (as well as left-hand) margin. If an object is selected then the illuminated section of text is justified between the current margins; otherwise the current paragraph is justified. Paragraphs may be indented both as an editing operation and during entry. Edword will search for a given string of characters. If required, Edword will replace those characters by a second string entered by the user. Replacement can take place throughout any section of text (from a word to the complete document) or alternatively just the first occurrence can be replaced. Characters may also be replaced by overtyping. Text can be entered at predetermined positions within a document. Blocks of text may be moved within a document, thus effectively providing the electronic equivalent of "cut and paste".

It is possible to switch on/off a display of all the spaces and RETURN characters held within a document. These characters are displayed using special symbols. This inclusion facilitates the teaching of principles such as justification and paragraph merging. They provide the user with a tool that assists in both formatting and error analysis (in conjunction with (ERROR HELP)).

What we in education must do is to ensure that the word processing package we use is designed for our users - the pupils. Bear in mind, however, that just because our packages are educational there is no reason why they cannot provide many of the comprehensive features available in commercial systems.

Peter R Weston is Project Director, Word Text and Information Processing with MEP in Wales. Information about EDWORD can be obtained from: Clwyd Technical Ltd, Department EWP/IT, Coach House, Kelgerston Road, Flint, Clwyd.

continued on next page

EXTRA

Muppets, mazes and maths

Carolyn O'Grady on programs for pre-school children in the USA

According to marketing surveys most people who buy computers for the home at present are married with two children aged six and up. The next onslaught on the domestic market will probably be aimed at changing this consumer profile. Software for pre-school children is being produced in this country and certainly in the USA a great deal of software for very young children is coming on to the market this year.

The largest producers of software for this age group in the USA is the Children's Computer Workshop, an offshoot of the famed Children's Television Workshop, producer of *Sesame Street*. The 24 programs they are producing this year will probably be instant hits with parents already won over by the lovable characters, expertly executed animation sequences and educational success of *Sesame Street*.

Sesame Street is an all-American show, from its jokes down to its pronunciations and spellings, but this hasn't stopped it being taken up in 50 countries, and inevitably it has spawned an industry the products of which include furry toys, books, records, foods, a play park and recently the Children's Computer Workshop, a wholly owned "for profit" subsidiary of the Children's Television Workshop.

The first programs from CTW, made in conjunction with Busch Entertainment Corporation, were 16 programs created for the Sesame Place entertainment play parks. These are in Langhorne, Pennsylvania and Dallas Texas. Following this the Children's Computer Workshop was set up last year and during this year will be producing 24 games to be distributed by Tandy and Atari of which at least a

half will be for pre-school children. Undoubtedly many of these will soon be finding their way across the Atlantic.

The principles behind the design of the software, says Jean Marlow, Marketing Manager of CCW, are very much those which lie behind the making of *Sesame Street*: the first objective is to entertain, and therefore there is a large element of play. "The play should enhance the learning by making a friendly process, encouraging the child or young person to experience new concepts and exercise new skills. In turn the learning enriches play."

Many of the programs apply themselves to the primary pre-reading concerns of nursery schools: shape recognition and counting included, while others are the sort of puzzles often found in children's puzzle books; mazes of every type and skill level are the favourite.

Thus we have the Cookie Monster Munch in which the child gets the cookies out of the mazes and puts them in a jar chased by the Cookie Monster, or Ernie's Magic Shapes, in which the child helps Ernie find his shapes and make them into pictures. In this one the child has to choose the correct shape and colour. There is also Grover's Number Rover in which the child helps Grover find the answer to various number problems. These games can be played at six different levels.

None of these games are particularly educationally sophisticated and the subjects are those chosen by most publishers of software for this age range. Where they score is in the quality of the graphics and in the use of characters which the children can recognize and identify with.

Much pre-school software already available is surprisingly workbook-like in its approach, intelligence tests on the screen badly written with very little depth. The programs from CCW do try to engage the children's feelings as well as their intellect. CCW are also well aware that computer graphics are often a real disappointment to children used to technically superior cartoons on television and beautifully drawn children's books. Some of the unfinished programs will contain graphics of a quality as yet unseen in the market.

Perhaps the Workshop's most original contribution to the software available for the lower age range are those programs which demand cooperation: a value much stressed in the *Sesame Street* series. What is interesting about these games is that they are not advertised as cooperative games; it becomes obvious in the course of playing them that two will fare better together than one working either individually or competitively.

Take Peanut Butter Panic. Two nutnicks are in search of moving stars to power their peanut butter sandwich-making machine. The more stars the two players catch the more sandwiches then can make. But the more they jump for the stars the thinner and less able they become. Then they have to eat the sandwiches to get more energy. The biggest stars can only be caught by cooperation - by launching each other on the star spring and children, said Miss Marlow, soon begin to work out a cooperative strategy for overcoming the problems.

Taxi is another game emphasizing cooperation. A two-cab taxi company can be operated in a choice of six international cities. Passengers are

picked up and fares and tips collected. But to make the best and most profitable use of their time the children must cooperate.

This facility of the microcomputer to encourage cooperative games is often noted by educationists and is in direct contradiction to the fear often expressed by teachers and parents of the isolating effect of microcomputers. Because of the immediacy of the effects and the desire to achieve those effects children and adults often opt for cooperation rather than competition when faced with a problem.

CCW is only one source of a lot of material for the home market which is about to be made available in the USA and subsequently over here. They are, however, the largest source and they are one which will appeal to many parents because of the association with *Sesame Street* and an advertising campaign which stresses that the products are "age-appropriate, non-violent, non-sexist, pro-social and fun".

They will also be technically first-class. The team of educational experts behind them is very impressive, including Professor Andrea A di Sessa of MIT. But educationally imaginative they - surprisingly - are not. This characteristic may be more evident in the CCW products for schools, many of which are being released at the same time. Parents and nursery schools could do well to see what also emerges from some English sources, for example from ASK (which involves Tom Stoker of Bradford University and Mike Thorne), Ladybird / Longmans and Collins, all of whom are bringing pre-school programs this year. If they feel that the very young must have computers.

Means and ends

Paul Higham on producing good software

In the last few years the teaching of computing in both schools and colleges has increased dramatically. The result of this is that more and more people are becoming involved with software and its associated problems.

There is a danger, however, that students are being taught to program without any instruction in producing good software. I do not include the difficulties in learning the syntax of a particular language, whether it is a low level language or a high level language such as BASIC or PASCAL. This can be overcome by good instruction, books, and above all practice.

Students learning a programming language, in a few years time, might be those involved in the production of software for a small business or, even, a large project such as a military radar system. It is essential that they are given an insight into the problems of

writing large programs and suggestions as to how problems can be avoided.

Students themselves usually only write relatively small programs, maybe one or two hundred lines, if they are very motivated. Large systems, such as a communication system might be of the order of 50-500 thousand lines and methods of producing small programs cannot be expanded to cope with large ones. The whole area of software production and testing needs to be studied. Understanding problems associated with large programs will help the student to create better programs of his own.

In today's projects, whether a business system, military system or communication system, software costs are a major part of the total development costs, in the region of 80 per cent. This means that if things go wrong in the software area (and they usually do)

continued next page

Explore Maths with your Micro:

a book for kids aged 9 to 90

DAVID JOHNSON

This book can be started as soon as you have unpacked your micro - it will teach you to program while introducing you to the patterns and products of real numbers. It has been written for the Sinclair Spectrum and ZX81, but can also be used by owners of most other micros. The 28 Activities cover topics from counting in three to square roots, and from plotting points and drawing pictures to finding the perfect number in future centuries.

June 96pp 11mp £3.95

Software for O-level Maths

Linear Programming

INDEPENDENT SCHOOLS' MICROELECTRONICS CENTRE

This program allows a problem in linear programming involving up to five inequalities to be investigated in detail. The computer draws the diagram, and will display the value of the chosen value function at any point identified by the moveable cursor. A high degree of accuracy may be obtained by adjusting the axes to 'zoom in' on a particular portion of the diagram.

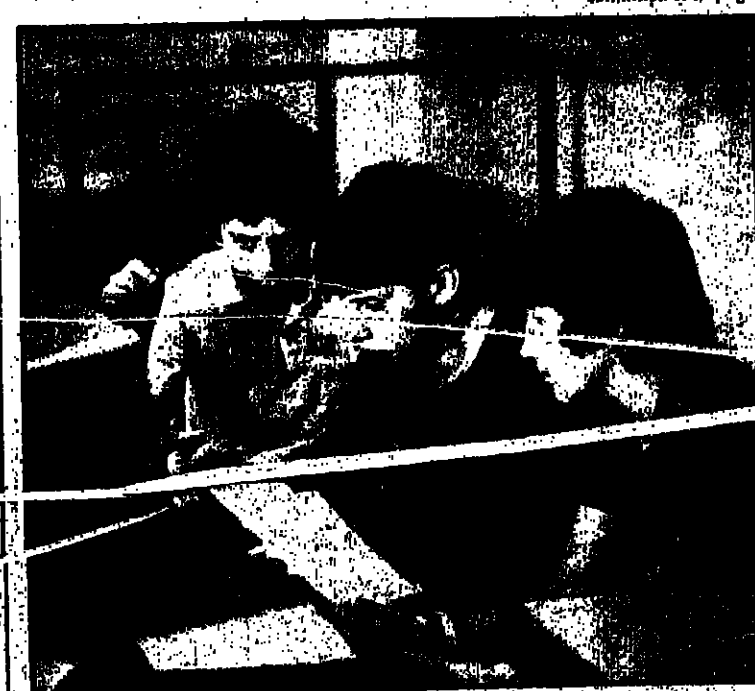
June Disk for BBC Micro £12.00 + VAT

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This package demonstrates how to draw the graph of an equation by constructing a table of values; the solution of simultaneous equations; and the more general relationship between equations and their graphs. In both Cartesian and polar co-ordinates. Additional graphs may be superimposed on the original functions, and the axes may be altered to enlarge the area studied, or to 'zoom in' on a particular portion of the diagram.

June Disk for BBC Micro £12.00 + VAT



If you have been buying educational software for a few years now, you'll have noticed how many of the companies that appeared in the early years of micros have just as quickly disappeared. There is however, one software company which began in a small way three years ago but has since then grown and developed until its 1983 catalogue has 16 pages containing over 80 programs. With software by such prestigious authors as Russell Wills, Bill Tall and Graham Davies; and with such excellent peripherals as The Cambridge Graphics Tablet and the Edinburgh Turtle, the new ESM catalogue is proof we're one company that won't be doing a disappearing act.

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Write for a copy of the new ESM catalogue:
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BIOLOGY - over twenty programs (BBC, Dragon)
PHYSICS - a variety of programs for 12-15 year old children (BBC, Dragon)
MATHS - a series of programs designed to help children learn some of the principles of mathematics, and very different from the many dull 'drill and practice' programs so commonly seen (BBC, Dragon).
FRENCH TUITION - the first of a series of programs for CSE/CEC level French (40k Spectrum).

Full details from GARLAND COMPUTING, 35 DEAN HILL, PLYMOUTH PL3 9AF
 Tel: 0782-11287.

Christopher Jarman's 'Beats Modern Hand' now computerised! "CAPITALS" draws upper case letters across-size, numerals too. "LETTERS" draws lower-case. Both feature 44-colour and sound (which can be turned off) and cost £9.95 each (BBC 'B' only - Spectrum version coming soon!)

chalksoft Dept. YB275
Lewmar College (YB)
Towanda, Washington
General YB275 GSA
002-267-7117

DIE

Teachers of young children will no doubt have discovered that Bigtrik's turning in minutes can be used to advantage in teaching time. Thus: "How many minutes before quarter-one is twenty-past-twelve?" becomes a concrete problem that can be solved by counting the classroom floor.

Ideas of shape, motion, velocity, symmetry and topology may be given even new insights and greater meaning through experiential learning using Bigtrik. Bigtrik's case in teaching ideas of shape is weakened by the fact that once the vehicle has described the shape of the space for the child to examine. Short of drawing a circle around this piece of chalk, there is little that can be done to provide a semi-permanent drawing of Bigtrik's movement.

Without this, we might be making unrealistic demands on young chil-

The importance of the latter two points cannot be over-emphasized, although the thought of documenting software (or anything else for that matter) is not exactly enthralling. It should be remembered that no programs of any reasonable size (upwards of a few hundred lines) are error free. The efficient correction of errors relies on good documentation. This

Bigtrak is also a powerful tool for developing a range of intellectual skills. In designing a program to get Bigtrak from A to B the child must:

- analyse the parts of the problem and control the variables
- apply previous knowledge of Bigtrak's capabilities, ability to esti-

The ability to control one's own desires so that the group can function; a willingness to participate and take on various roles within a group; sensitivity to the needs of others, can all be developed during situations in which Bigtrak provides the stimulus. Surely one of the most powerful arguments for using computer technology in the classroom is the curiosity, excitement and determination to master them that is generated in the most reluctant learner.

You cannot use the compiler with model A. There just isn't enough store. But my impression is that everyone is now buying model B, upgrading their model As.

The compiler translates to compact code, a Compact Interpretive Compiler for a 16-bit virtual stack machine.

debugging techniques can be provided as a diagnostic mode; some of the provided I have used on the C version and find they compare well to DEC's DDT for the DEC version and would make any IBM programmer bright green with envy. Some

slower and this may be critical in certain on-line applications. The system provides RAS, a relocatable assembly system, so that machine code hunks can be incorporated into a program. This technique was used to write some time-critical parts of the system. It is usually the case that only a short kernel of one's program requires to be put in to machine code since most programs can be seen to spend 95 per cent of their time in 5 per cent or less of the program text. There is a statistics-gathering part of Debbug to find out where this 5 per cent is

The final major gody — the mind boggles — was taking one right through the ones and twos advertisements to list, let alone describe — is the Editor and its sub-editor, Tiny ED. It is the only context-editor I know on a microprocessor that gets within hailing distance of the more sophisticated editors I have ever met. And I think it would be feasible to bring it up to whispering rather than yelling distance; it would certainly be interesting to try. It took me some three weeks to become fluent in all its features and see what its limitations were when I was using it on a CP system. Don't let that put off the beginner. Ten minutes with the user's guide will give anyone a basic six-

Most immediately, it offers him more quickly produced, larger, faster systems that are portable across machines. That means cheaper, not only because less programmer time is needed to implement their design, but also because less effort is needed to spread their marketability across a range of machine. I would expect

continued on next page

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Marlborough Hill, NW8 ONL

Applications are invited for the Headship of this school which will become vacant on 1 September 1983 following the transfer of the present headteacher, Mr. P. J. Mitchell, to another post with the Authority. The school is developing as a centre for community education. Voluntary youth activities are integrated with the school's management structure. Roll 1005. An allowance of £1143 p.a. is currently payable (until 31 August 1984) in respect of community education responsibilities.

Please send photocopy for application form and further details to Education Officer, ED/TS10, County Hall, London, SE1 7PB. Closing date for the return of completed application forms 17 June.

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DORSET

Beaufort Mixed School
Beaufort Road,
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Group 9 - 720 on roll

Required from January 1984, a.

HEADTEACHER

For this co-educational secondary school - age range 11-16 years.

This is a re-advertisement and previous applicants should confirm that they wish their application to be reconsidered.

Application forms and further details from the Staffing Officer, Eastern Area Education Office, Portman House, Richmond Hill.

EDUCATION DEPARTMENT

Maldstone Division
SENACRE SCHOOL
SUTTON ROAD, MALDSTONE ME15 9DT

Group 10: Roll 282 (11-16 years)

Appointment of HEAD TEACHER

Applications are invited for the post of Head Teacher for this High School from the Spring Term 1984. Under the Authority's Thematic Scheme the School has a Comprehensive intake in the first two years. At the age of 13 pupils either transfer to the Upper Schools to follow courses leading to G.C.E. 'A' level or remain at the Senacre School where they prepare for G.C.E. 'O' level and CSE examinations. Physically handicapped pupils are integrated into the School which is also recognised by the Authority as a school of exceptional difficulty.

Forms of application and further particulars may be obtained from the Education Officer, Senacre House, Heading Road, Maldstone, ME15 7BQ, to be returned by 17th June 1983.

Sheppway Division

PENT VALLEY SECONDARY SCHOOL,
FOLKESTONE

Group 10: Roll 720

Appointment of HEAD TEACHER

Applications are invited for the post of Head Teacher of this secondary modern school for boys and girls. The successful applicant will be required to take up duty at the beginning of the Spring Term 1984.

Application forms and further details from the Divisional Education Officer, 3 Broomfield Road, Folkestone, Kent, CT20 2BQ. Closing date for applications: 17th June 1983.

KENT COUNTY COUNCIL

PRIMARY EDUCATION continued

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ST. PAUL'S R.C. FIRST AND SECOND SCHOOLS, Bournemouth, Dorset. Required for September 1983. Applications for the post of Head Teacher for the First School.

Application by letter (C.V. and salary history) to the Headmaster, St. Paul's R.C. School, Bournemouth, Dorset. (10000)

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Our Lady's R.C. Primary School, London N10 1PS. Required for September 1983. Applications for the post of Head Teacher for the First School.

Application by letter (C.V. and salary history) to the Headmaster, Our Lady's R.C. School, London N10 1PS. (10000)

THORPE WILLOUGHBY COUNTY PRIMARY

Teacher for class of third year Junior with an interest in one or more of the following activities: drama, games, gymnastics, music, etc.

Application by letter (C.V. and salary history) to the Headmaster, Thorpe Willoughby County Primary School, Lincoln. (10000)

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Teacher for class of third year Junior with an interest in one or more of the following activities: drama, games, gymnastics, music, etc.

Application by letter (C.V. and salary history) to the Headmaster, Burdyke County Infant School, Lincoln. (10000)

DEWENT COUNTY JUNIOR

Teacher for class of third year Junior with an interest in one or more of the following activities: drama, games, gymnastics, music, etc.

Application by letter (C.V. and salary history) to the Headmaster, Dewent County Junior School, Lincoln. (10000)

ST. IGNATIUS R.C. J.M. & I.

Teacher for class of third year Junior with an interest in one or more of the following activities: drama, games, gymnastics, music, etc.

Application by letter (C.V. and salary history) to the Headmaster, St. Ignatius R.C. J.M. & I. School, Lincoln. (10000)

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Teacher for class of third year Junior with an interest in one or more of the following activities: drama, games, gymnastics, music, etc.

Application by letter (C.V. and salary history) to the Headmaster, St. Anne's R.C. J.M. & I. School, Lincoln. (10000)

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ST. ANNE'S R.C. J.M. & I.

Teacher for class of third year Junior with an interest in one or more of the following activities: drama, games, gymnastics, music, etc.

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Application by letter (C.V. and salary history) to the Headmaster, St. Anne's R.C. J

SECONDARY EDUCATION

Mathematics

Heads of Department

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ONAR COMPREHENSIVE

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Onar 353232

Head of Mathematics

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DUDLEY

METROPOLITAN

BOROUGH

THE NORTH HILL SCHOOL

West End, Dudley, West

Mid

(12 - 16+ co-ed. comp.)

Group 9

For September 1983 or

October 1983

Head of Mathematics

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LEICESTERSHIRE

HIGH SCHOOL

St. Thomas Road, South

Wigston, Leicester

In the Leicestershire plan

for the 1983-84 school

year secondary education

11 - 14 High to be 10 - 14

1984

ROLL 669

2ND INDEPENDENT

DEPARTMENT

SCALE 1 (available for

suitable applicant)

Required August, an ex-

perienced and enthusiastic

Mathematician with an

special interest in mixed

ability and curriculum de-

velopment.

Apply to the headmaster

by letter with full C.V.

and name of two referees

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BEDFORDSHIRE

NORTHERN AREA

SANDY UPPE SCHOOL

Sandy Uppe, Sandy, Beds

Headmaster Mr. J. Franchomme

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131

SECONDARY MODERN LANGUAGES continued

WIRRAL
METROPOLITAN BOROUGH OF WIRRAL
EASTMAN SECONDARY SCHOOL
Plymouth Avenue,
Eastham, Wirral L35 2BN
780 on roll Mixed
REQUIRE 1983 or 1984 for the following posts:
1. French (Scale 11-12) 133618
2. German (Scale 11-12) 133619
3. Spanish (Scale 11-12) 133620
4. Italian (Scale 11-12) 133621
5. Latin (Scale 11-12) 133622
6. Music (Scale 11-12) 133623
7. Art (Scale 11-12) 133624
8. Physical Education (Scale 11-12) 133625
9. Home Science (Scale 11-12) 133626
10. Design (Scale 11-12) 133627
11. Woodwork (Scale 11-12) 133628
12. Metalwork (Scale 11-12) 133629
13. Textiles (Scale 11-12) 133630
14. Needlework (Scale 11-12) 133631
15. Cookery (Scale 11-12) 133632
16. Gardening (Scale 11-12) 133633
17. Horticulture (Scale 11-12) 133634
18. Agriculture (Scale 11-12) 133635
19. Animal Husbandry (Scale 11-12) 133636
20. Fisheries (Scale 11-12) 133637
21. Poultry (Scale 11-12) 133638
22. Rabbit Rearing (Scale 11-12) 133639
23. Beekeeping (Scale 11-12) 133640
24. Apiculture (Scale 11-12) 133641
25. Aquaculture (Scale 11-12) 133642
26. Viticulture (Scale 11-12) 133643
27. Oenology (Scale 11-12) 133644
28. Enology (Scale 11-12) 133645
29. Food Preservation (Scale 11-12) 133646
30. Food Technology (Scale 11-12) 133647
31. Food Science (Scale 11-12) 133648
32. Food Microbiology (Scale 11-12) 133649
33. Food Chemistry (Scale 11-12) 133650
34. Food Nutrition (Scale 11-12) 133651
35. Food Hygiene (Scale 11-12) 133652
36. Food Safety (Scale 11-12) 133653
37. Food Quality (Scale 11-12) 133654
38. Food Packaging (Scale 11-12) 133655
39. Food Marketing (Scale 11-12) 133656
40. Food Distribution (Scale 11-12) 133657
41. Food Retailing (Scale 11-12) 133658
42. Food Wholesaling (Scale 11-12) 133659
43. Food Importing (Scale 11-12) 133660
44. Food Exporting (Scale 11-12) 133661
45. Food Processing (Scale 11-12) 133662
46. Food Manufacturing (Scale 11-12) 133663
47. Food Engineering (Scale 11-12) 133664
48. Food Design (Scale 11-12) 133665
49. Food Development (Scale 11-12) 133666
50. Food Innovation (Scale 11-12) 133667
51. Food Research (Scale 11-12) 133668
52. Food Analysis (Scale 11-12) 133669
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